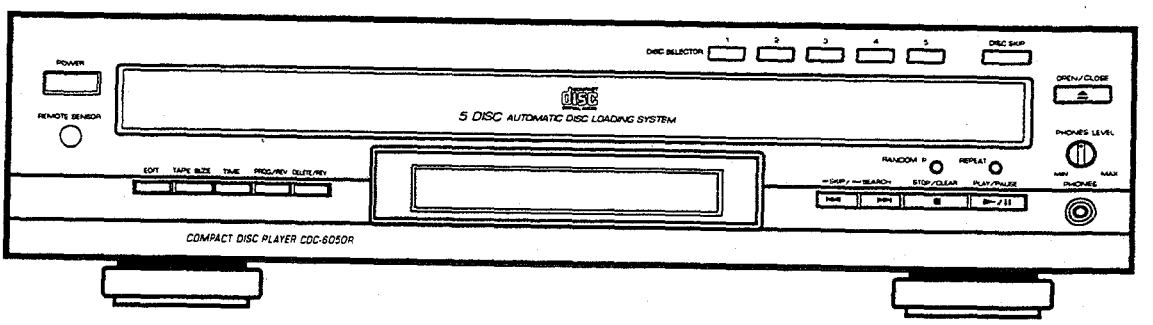
SERVICE MANUAL

CDC-6050R
COMPACT DISC CHANGER

CDCG-6050R
COMPACT DISC GRAPHIC CHANGER



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Sherwood®

LASER BEAM SAFETY PRECAUTIONS

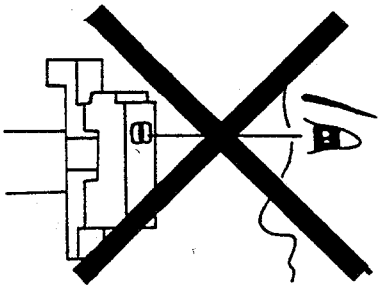
CLASS 1 LASER PRODUCT

CLASS 1
LASER PRODUCT

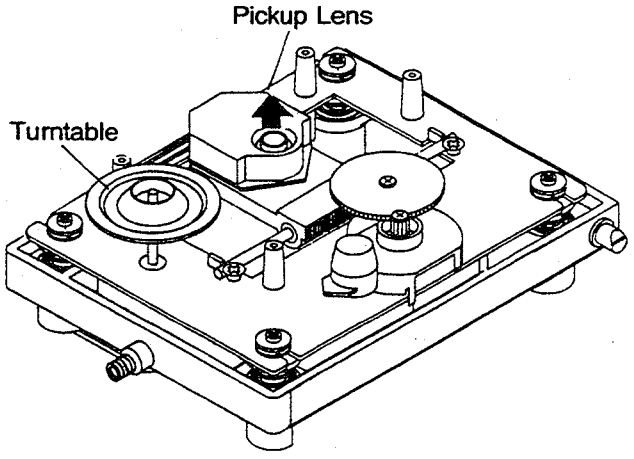
CAUTION
Invisible laser radiation when the unit is open. DO not stare into beam.

CAUTION: USE OF ANY CONTROLS, ADJUSTMENT, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.



This compact disc player uses a pickup that emits a laser beam. The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 1 foot away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.



CAUTION:
Using controls and adjustment, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Attention: Pour prévenir les chocs électriques ne pas utiliser cetre fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames prévent être insérées à fond sans en laisser aucune partie à découvert.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

HANDLING LASER PICKUP

The laser diode in the optical system of this player can be damaged by electrostatic discharge from your clothes or your body. Proper electrostatic grounding for service personnel is required during servicing.

BEFORE REPAIRING THE COMPACT DISC PLAYER

Preparation

- Human Body Grounding:
  Many of the components used in this compact disc player, including the laser pickup, are sensitive to electrostatic discharge. Service personnel should be grounded with an electrostatic armband (1 Mohm).

- Caution:
  Static charge on clothing does not escape through a body grounding wrist band.
  Be careful not to contact the pickup or electrical components with your clothing.

- Workbench and Tool Grounding:
  A properly-grounded electroconductive plate (1 Mohm) or metal sheet should be fitted to the workbench surface. Tools and instruments (such as soldering irons and scopes) should be grounded to prevent AC leakage.

Fig. 1

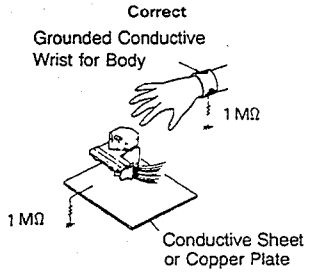


Fig. 2

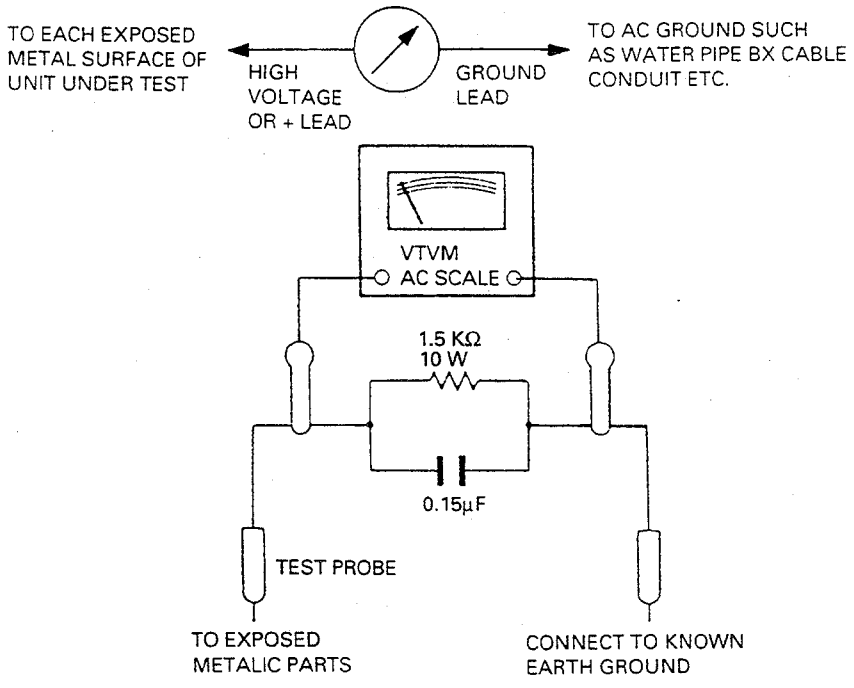
Note: Laser diodes are so susceptible to damage from static electricity that, even if a static discharge does not ruin a diode, it can shorten its life or cause it to work improperly.

LEAKAGE TEST

Before returning the unit to the user, perform the following safety checks:

1. Inspect all lead dress to makes certain that leads are not pinched or that hardware is not lodged between the chassis and other metallic parts in the unit.
2. Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. which were removed for servicing are properly reinstalled.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item no. 21641, RCA model WT540A or use alternate method as follows: plug the power cord directly into a 120-volt AC receptacle (do not use an isolation transformer for this test). Using two clip leads, connects a 1500 ohm, 10-watt resistor paralleled by a 0.15µF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (see diagram) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the on and off positions.)
   A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

SIMPSON MODEL 229 ETC. FOR LEAKAGE TEST



SPECIFICATIONS

General

Transmission bit rate	4.3218 Mbit/sec
Transmission on clock	16.9344 MHz
Error correction	CIRC C1, C2 double correction

Pickup

System	Object lens drive type optical pickup
Object lens drive system	2 Dimensional parallel drive type
Optical source	Semiconductor laser
Wave length	760-800 nm
Tracking system	3 Beam tracking servo type

Others

D/A converter	1 bit (Bitstream Conversion)
Power supply voltage	See type plate at the rear of the unit.
Power consumption	15 W
Dimensions (W × H × D)	440 × 95 × 380 mm (17-5/16 × 3-3/4 × 15 inches)
Weight (Net)	7.5 kg (16.53 lbs)
Power Requirment	A⇒USA and Canada: 120 V AC, 60 Hz D⇒Europe: 230 V AC, 50 Hz KS⇒Korea: 220 V AC, 60 Hz E⇒UK/Australia: 240 V AC, 50 Hz PT INDO⇒Other Countries: 110/220 V AC, 50/60 Hz

Electrical

*** Preparations**

- measuring methods in confirmity with EIAJ CP-307, CCIR 468-3.
- Reference level: 0 dB (LINE OUT 2 V).
- Test disc: SONY CD3 YEDS 7, A.BEX TCD 784, PHILIPS 5 A, A.BEX TCD 725.

Description		Signal	Track	Unit	Nominal	Limit
Frequancy Response		20 ~ 20000 Hz	2 ~ 13	dB	±0.5	±1
Signal to Noise Ratio, Weighted JIS A		1 kHz	23	dB	>95	>90
Unweighted			23	dB	>90	>85
Dynamic Range (Weighted JIS A)		1 kHz, -60 dB	20	dB	>95	>90
Total Harmonic Distortion at 0 dB		100 Hz	4	%	≤0.08	≤0.1
		1 kHz	7	%	≤0.08	≤0.1
		20 kHz	13	%	≤0.08	≤0.15
Channel Separation		1 kHz	30, 34	dB	≥85	≥80
		10 kHz	31, 35	dB	≥75	≥70
Channel Unbalance		1 kHz	7	dB	±0.2	±0.5
Output Voltage		1 kHz	7	V	1.7±0.2	1.7±0.3
Demphasis	-0.37	1 kHz	39	dB	-0.37±0.2	-0.37±0.3
	-4.53	5 kHz	40	dB	-4.53±0.3	-4.53±0.5
	-9.04	16 kHz	41	dB	-9.04±0.5	-9.04±1.0
Disc Defects	Black Dot		10 ~ 15	um	≥700	≥600
	Inetrrupt		3 ~ 9	um	≥800	≥700
	Fingerprint		17 ~ 19	um	ALL	ALL
Access Time	Short Access			sec	≤1	≤1.5
	Long Access			sec	≤6	≤10
Mic Input Overload		1 kHz		mV	70±5	70±10
Mic Input Sensitivity/500 mV		1 kHz		mV	2.5±0.5	2.5±1
Disc Deviations	Vertical	TCD-713		um	≥800	≥600
	Radial	TCD712		um	≥140	≥70

Environmetal

Test to specification

Temperature between 59℉ (15℃) and 95℉ (35℃) and relative humidity between 45% and 75%, with power supply voltage of 10% the normal supply voltage.

Operation

Unit must work properly and correctly at the temparature range from 32℉ (0℃) to 113℉ (45℃) and the relative humidity from 40% to 80%, and with the supply voltage.

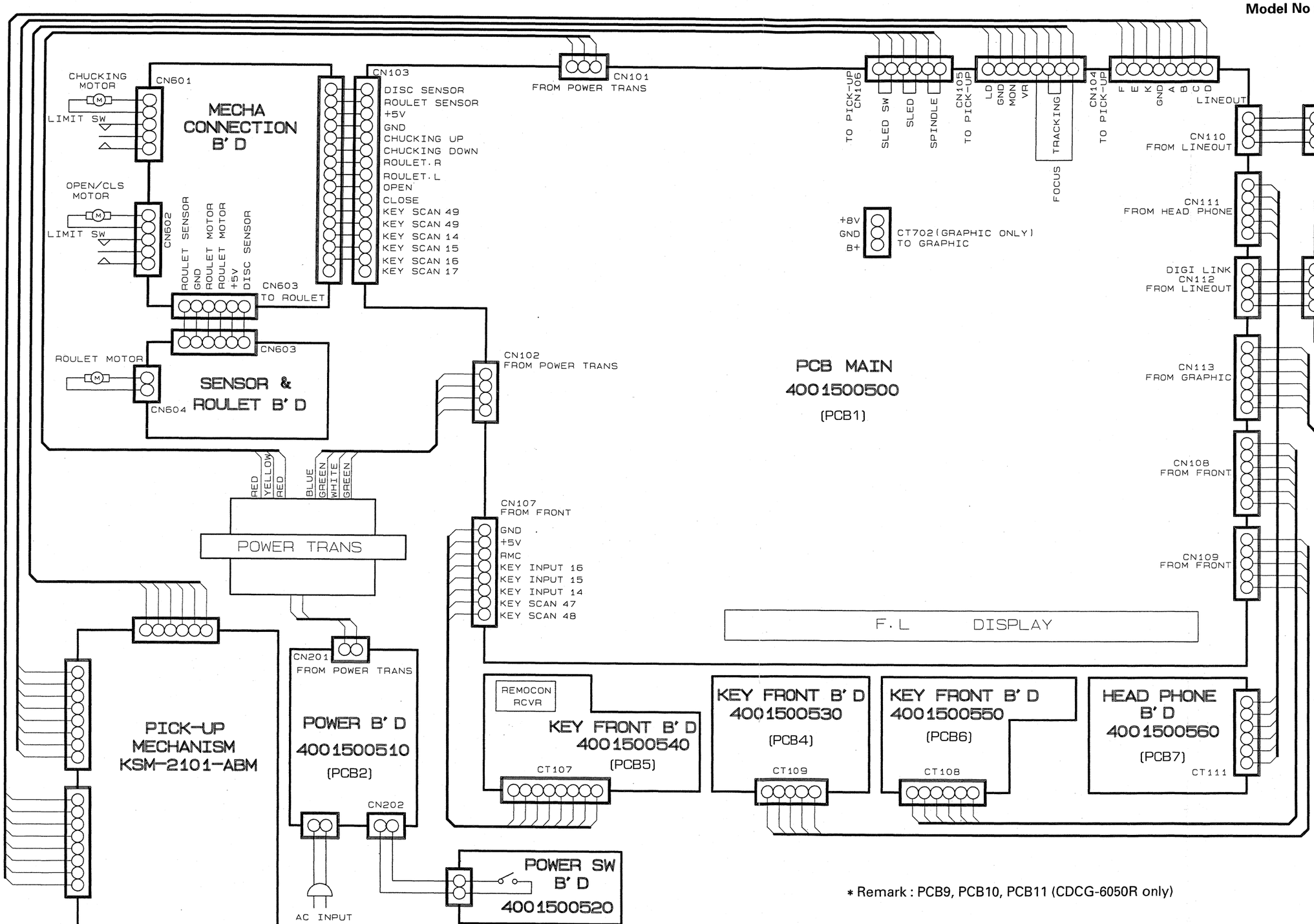
Storage

Temperature test: 48 hours each at -40℉ (-40℃) and 149℉ (65℃).
Humidity test: 40℃, 95% relative humidity.

Note : Nominal speces represent the design specs. All units should be able to approximate these. Some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable ; in no case should a unit fail to meet limit specs.
This manual is based on the EUROPE Standard wiring diagram, and information on regional component variations through use of parts list. Design and specifications are subject to change without notice for improvement.

WIRING DIAGRAM (I)

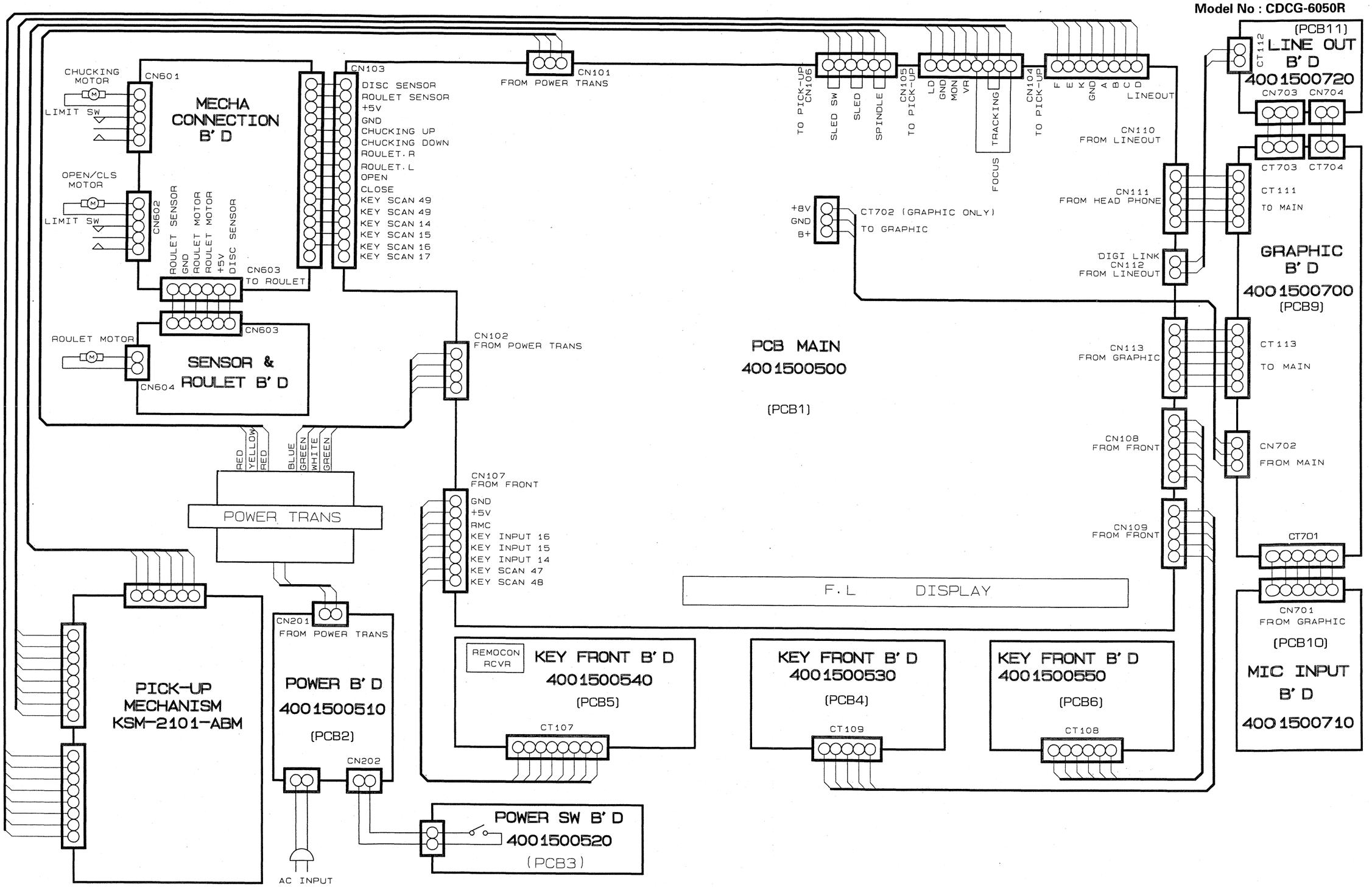
Model No : CDC-6050R



* Remark : PCB9, PCB10, PCB11 (CDCG-6050R only)

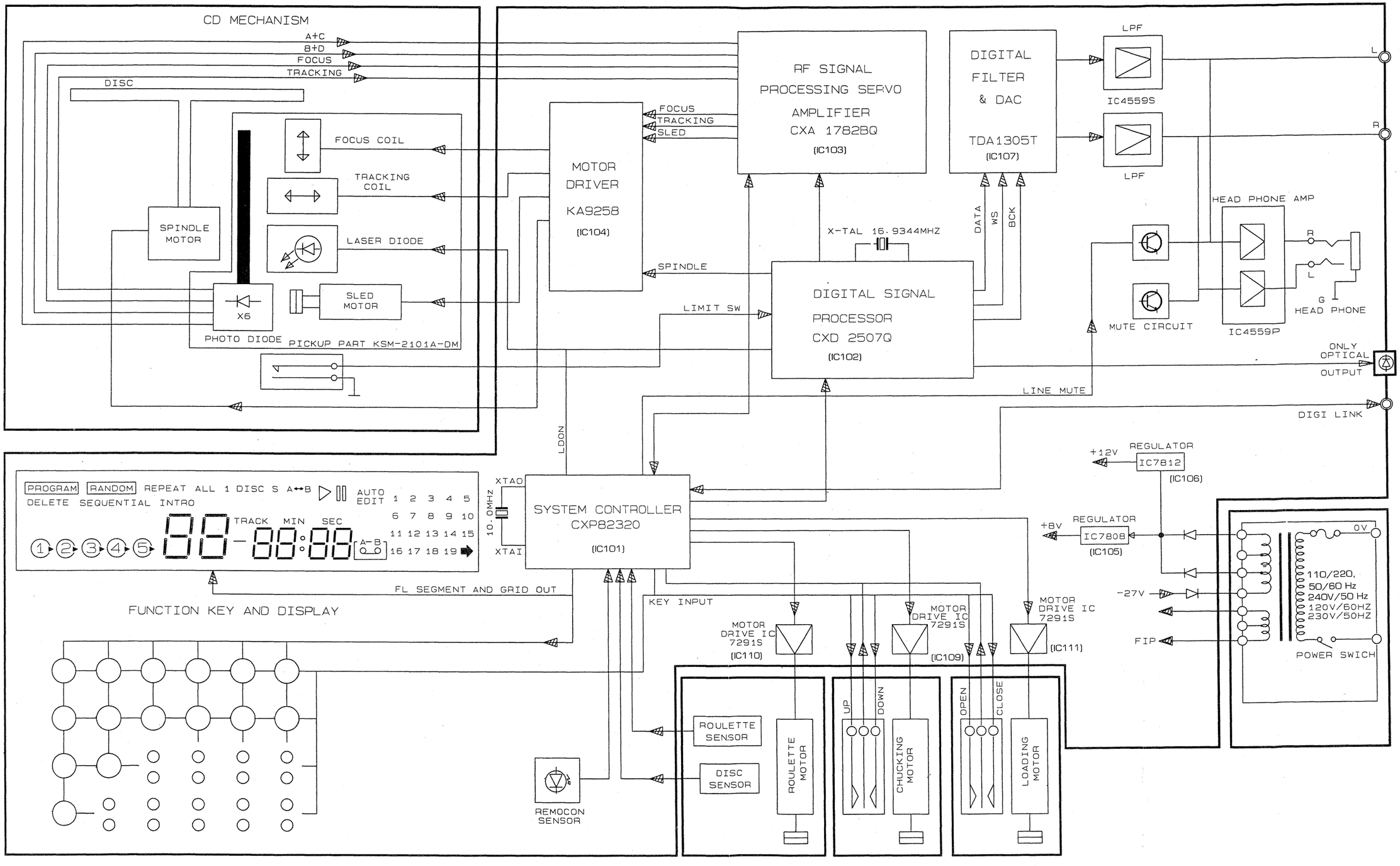
WIRING DIAGRAM (II)

Model No : CDCG-6050R



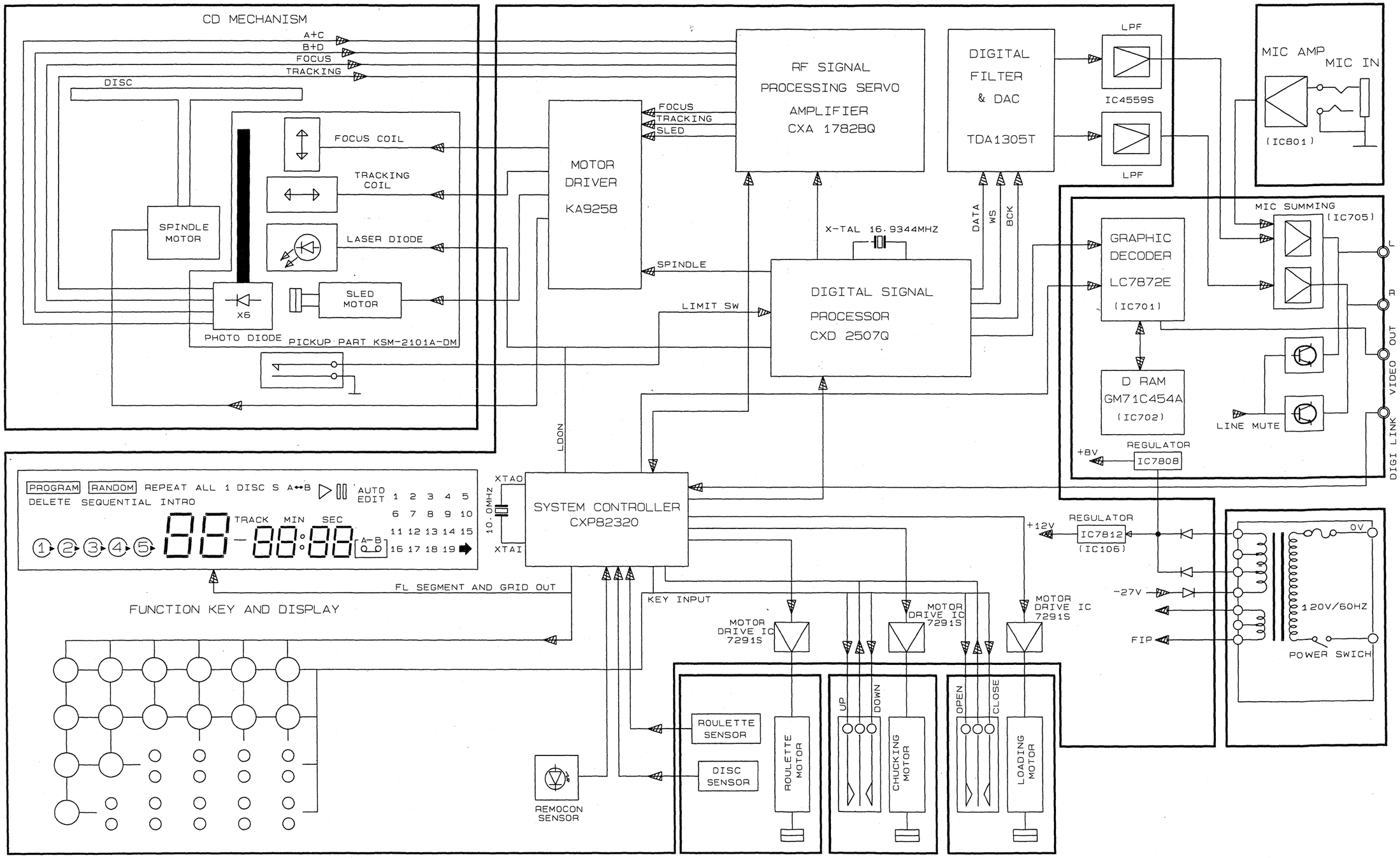
BLOCK DIAGRAM (I)

Model No : CDC-6050R



BLOCK DIAGRAM (II)

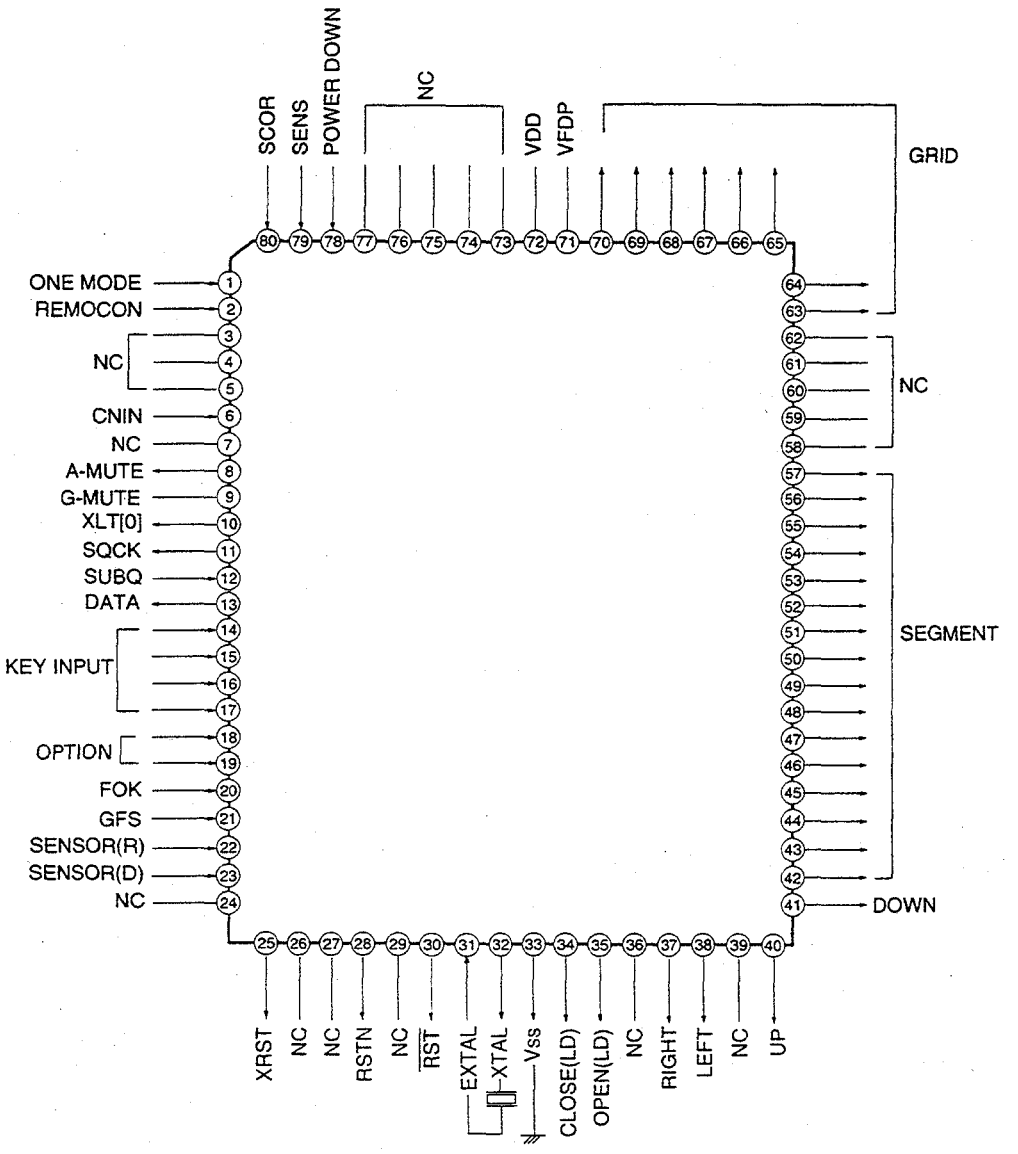
Model No : CDCG-6050R



CIRCUIT DESCRIPTION

CPU(IC201 : CXP82320-322)

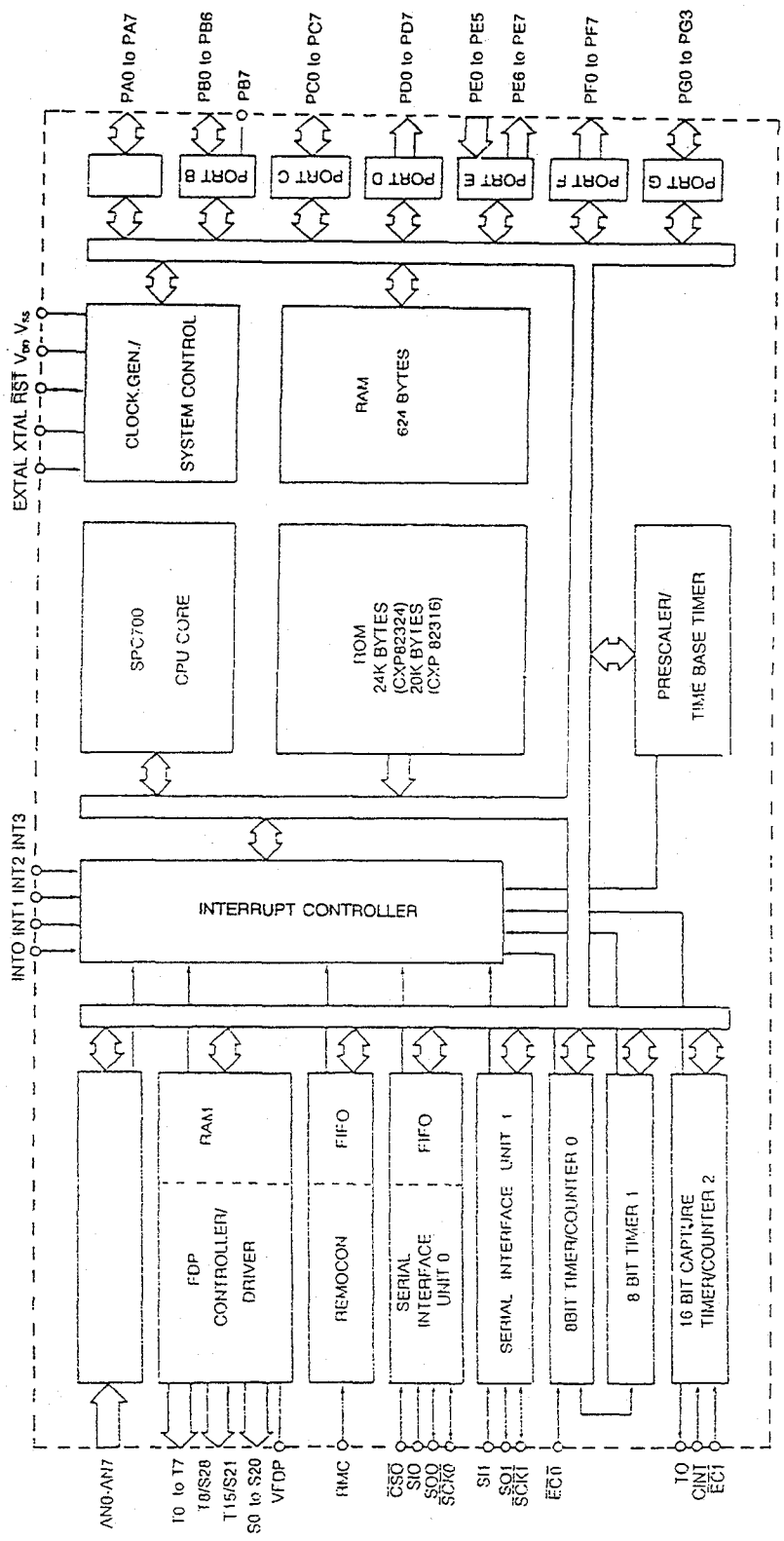
1. Pin Description



2. Pin Functions

Pin No.	Symbol	Description
1	ONE MODE	Test mode for production.
2	REMOCON	Input for remocon data.
3 - 5	NC	Not used! (It should be left open.)
6	CNIN	Signal input for automatic tracking adjustment from CXD2507.
7	NC	Not used! (It should be left open.)
8	A-MUTE	Output for audio mute.
9	G-MUTE	Not used! (It should be left open.)
10	XLT-0	Serial latch data output to CXD2507.
11	SQCK	Clock data output for subcode-Q readout to CXD2507.
12	SUBQ	Subcode-Q data input from CXD2507.
13	DATA	Serial data output to CXD2507.
14 - 17	KEY INPUT	Data input for key scan.
18 / 19	OPTION	VDD
20	FOK	FOK data from CXA1782BQ.
21	GFS	GFS data from CXA1782BQ.
22	SENSOR-R	Roulette sensor data input from mecha.
23	SENSOR-D	Disc sensor data input from mecha.
24	NC	Not used ! (It should be left open.)
25	XRST	Output fot resetting CXD2507.
26 - 27	NC	Not used ! (It should be left open.)
28	RSTN	Output for resetting SM5871AS.
29	NC	Not used ! (It should be left open.)
30	RST	Input for resetting CPU.
31	EXTAL	Input of 10 MHz oscillator crystal.
32	XTAL	Output of 10 MHz oscillator crystal.
33	VSS	Ground
34	CLOSE-LD	Output for driving motor to close the tray.
35	OPEN-LD	Output for driving motor to open the tray.
36	NC	Not used ! (It should be left open.)
37	RIGHT	Output for roulette motor to rotate the disc platter right.
38	LEFT	Output for roulette motor to rotate the disc platter left.
39	NC	Not used ! (It should be left open.)
40	UP	Output for chucking motor.
41	DOWN	Output for chucking motor.
42 - 57	SEGMENT	Segment signal output.
58 - 62	NC	Not used ! (It should be left open.)
63 - 70	GRID	Grid signal output.
71	VFDP	-35 V power supply for FL controller.
72	VDD	+5 V power supply for CPU.
73~77	NC	Not used ! (It should be left open.)
78	PD	Input signal for power down.
79	SENS	Sens signal input from CXD2507.
80	SCOR	Subcode-Q readout timing input from CXD2507.

3. Block Diagram



PICKUP REPLACEMENT

Caution:
Laser diodes are extremely susceptible to damage from static electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pickup, take appropriate measures, such as using a conductive mat and a grounded soldering iron, to protect the laser diode from static damage.

1. Remove the CD mechanism assembly by refering to the "EXPLODED VIEW II" on page 28 (See Fig. 3).

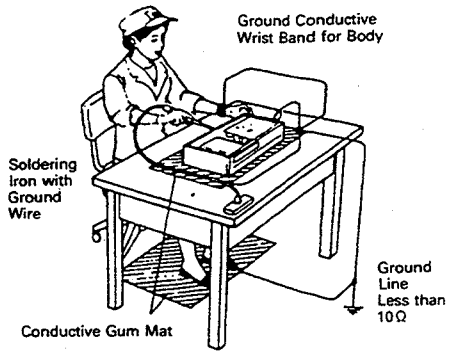


Fig. 3

2. Remove four screws S12 (See Fig. 4).

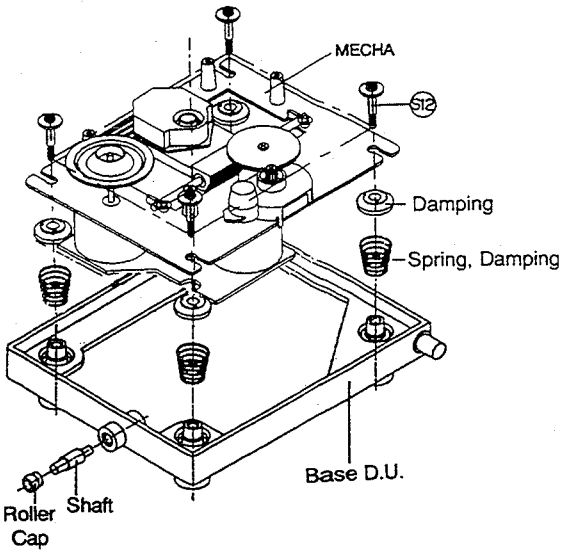


Fig. 4

3. Remove the gear A (See Fig. 5)
4. Pull out the slide shaft.

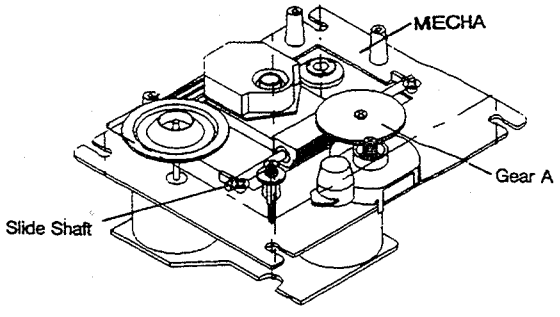


Fig. 5

5. Remove the pickup (See Fig. 6).

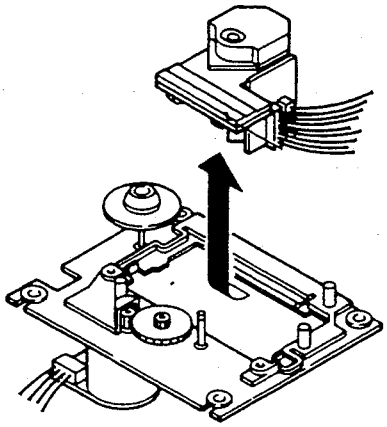


Fig. 6

6. After you connect the wire connector, desolder and remove the shorting tab (See Fig. 7).

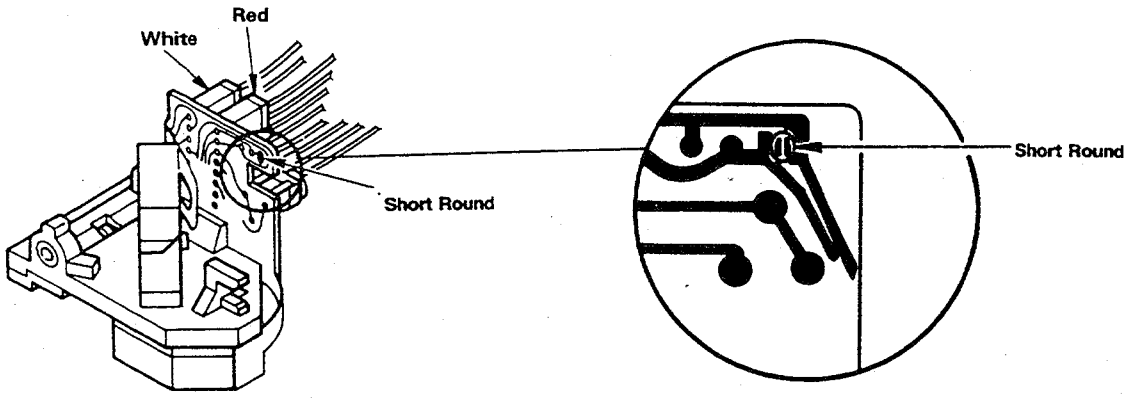


Fig. 7

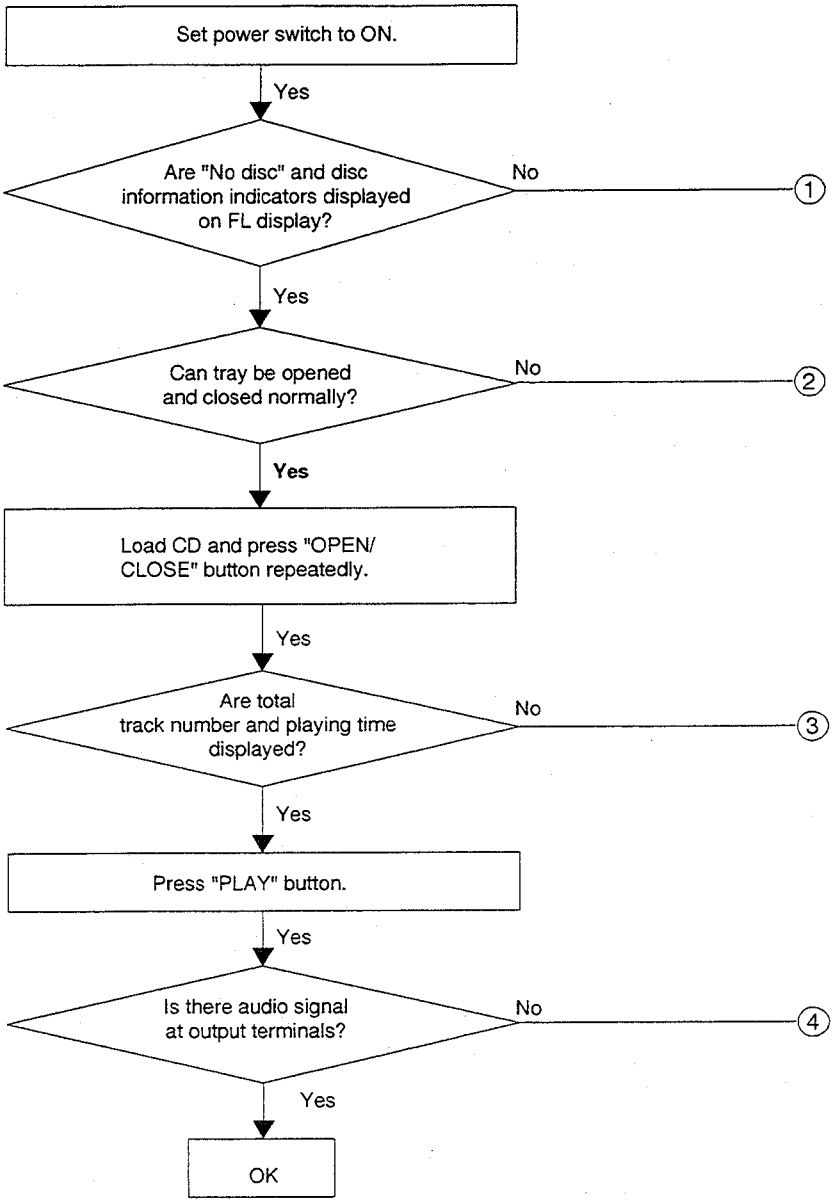
7. Refer to the "EXPLODED VIEW II" of the compact disc mechanism on page 28 for detailed illustrations.

OPERATION CHECK

When the power switch is turned on after the chucking arm is removed, observe the objective lens and check the following. (The optical system block should be at the lead-in position when it is checked.)

1. The disc table should be at the innermost position after the chucking arm is removed.
2. The diffused light of the laser beam can be seen when the power switch is turned on.
3. Vertical (up and down) movement of the objective lens take place (2 or 3 times).

TROUBLESHOOTING



[Repair item 1] At power on, "No disc" and some parts are not displayed.

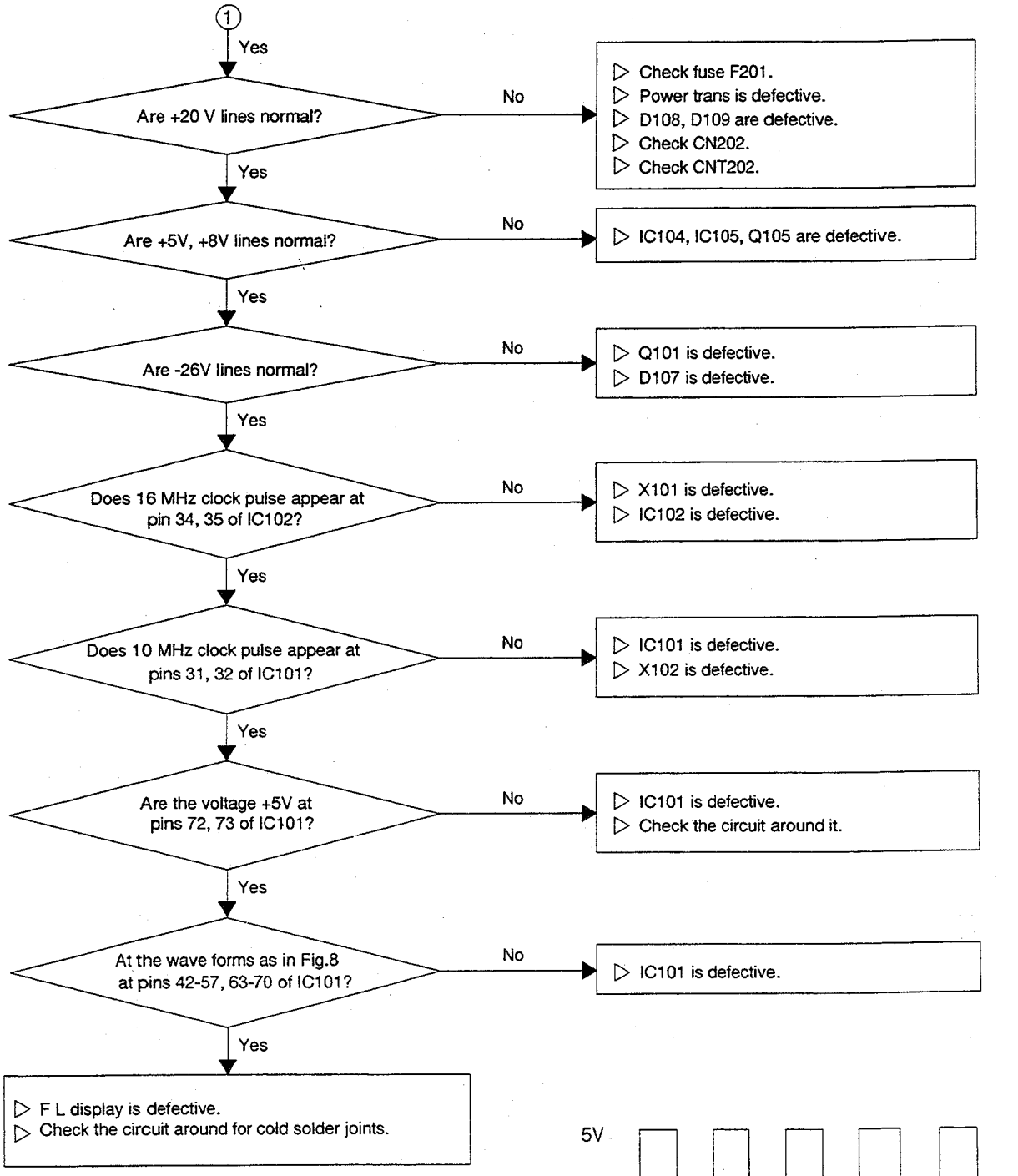
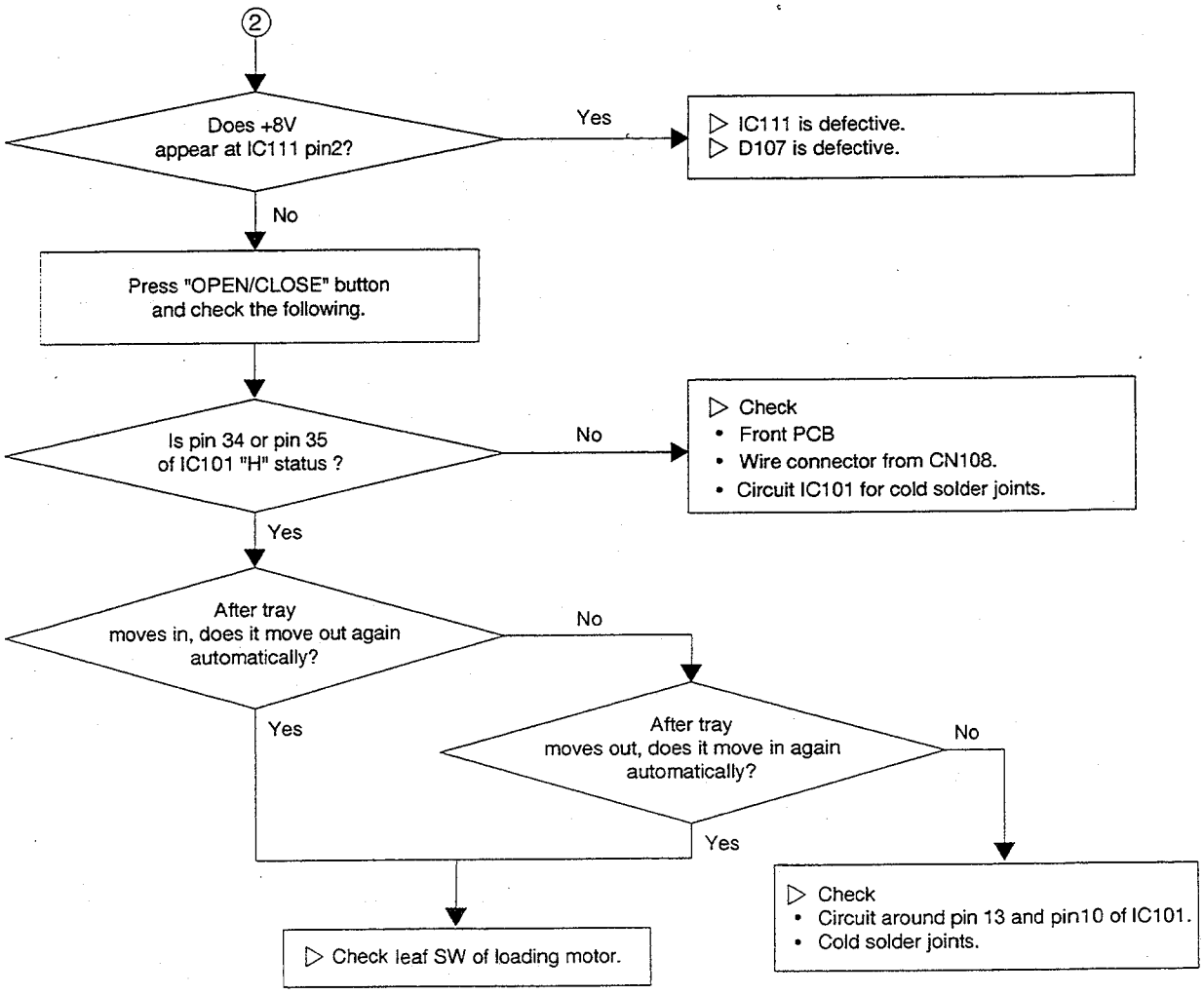
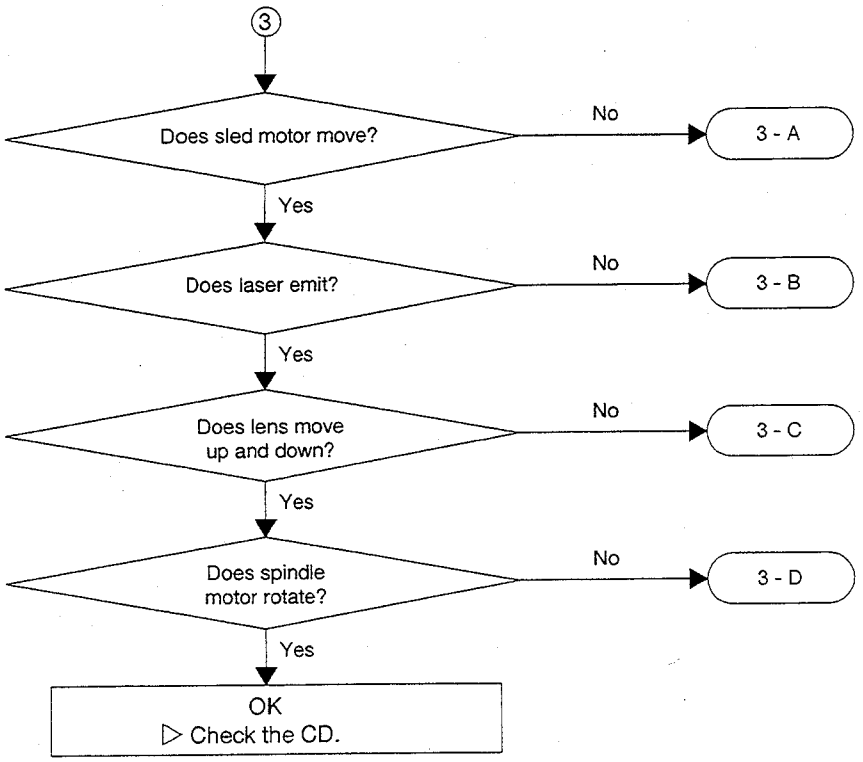


Fig.8

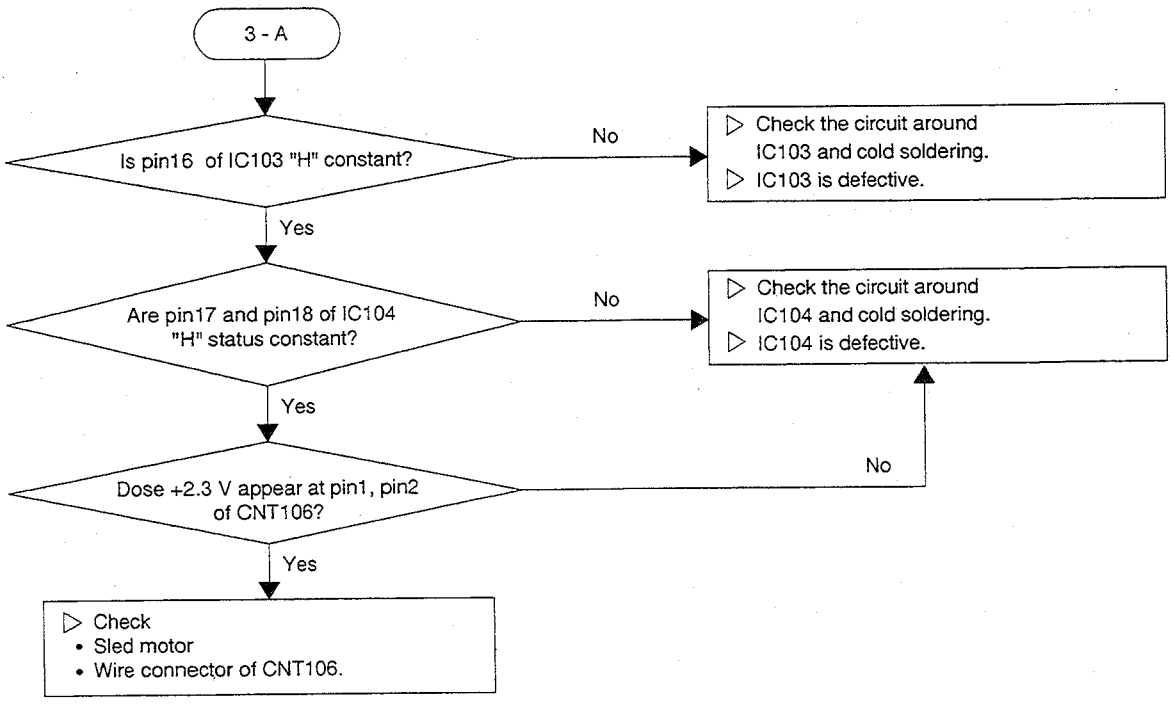
[Repair item 2] Tray cannot be opened and closed by pressing "OPEN/CLOSE" button.


②
Does +8V appear at IC111 pin2?
Yes
▷ IC111 is defective.
▷ D107 is defective.
No
Press "OPEN/CLOSE" button and check the following.
Is pin 34 or pin 35 of IC101 "H" status ?
No
▷ Check
• Front PCB
• Wire connector from CN108.
• Circuit IC101 for cold solder joints.
Yes
After tray moves in, does it move out again automatically?
No
Yes
After tray moves out, does it move in again automatically?
No
Yes
▷ Check
• Circuit around pin 13 and pin10 of IC101.
• Cold solder joints.
▷ Check leaf SW of loading motor.

[Repair item 3] "0" is displayed instead of total playing time and track number.



[Repair item 3-A] Sled motor does not move.


3 - A
Is pin16 of IC103 "H" constant?
No
▷ Check the circuit around IC103 and cold soldering.
▷ IC103 is defective.
Yes
Are pin17 and pin18 of IC104 "H" status constant?
No
▷ Check the circuit around IC104 and cold soldering.
▷ IC104 is defective.
Yes
Dose +2.3 V appear at pin1, pin2 of CNT106?
No
Yes
▷ Check
• Sled motor
• Wire connector of CNT106.

[Repair item 3-B] Laser does not emit.

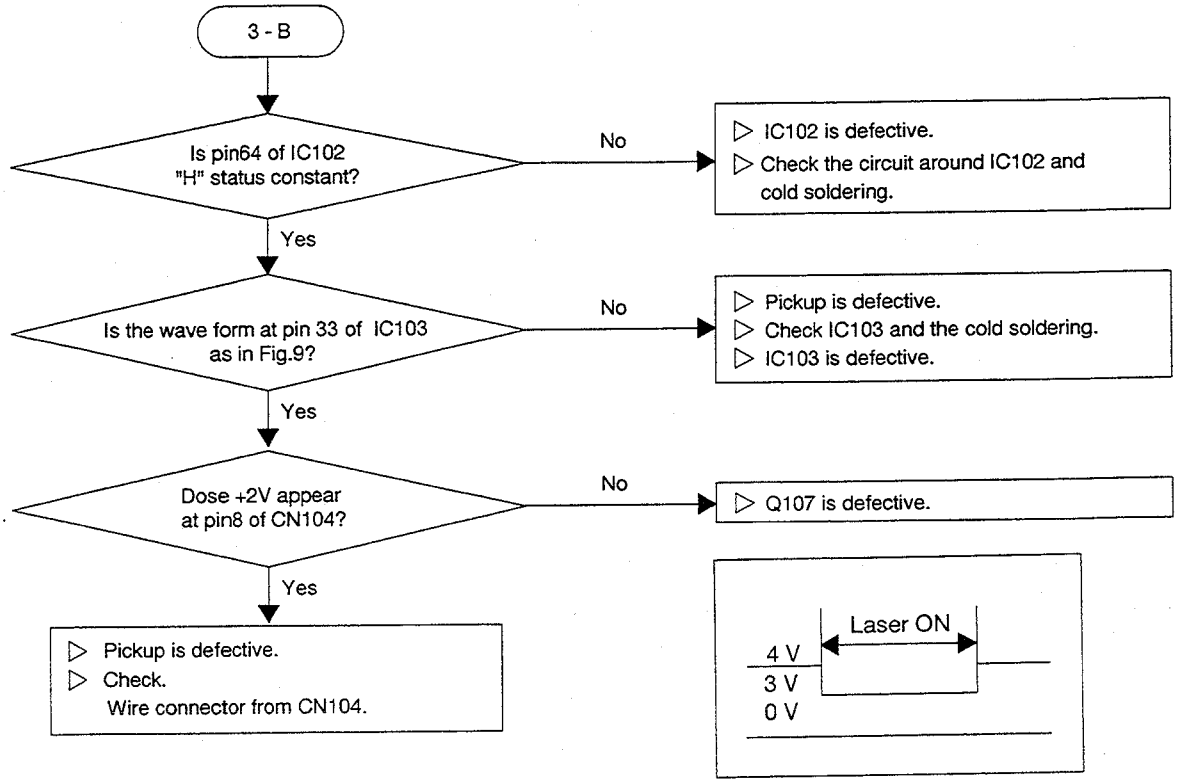
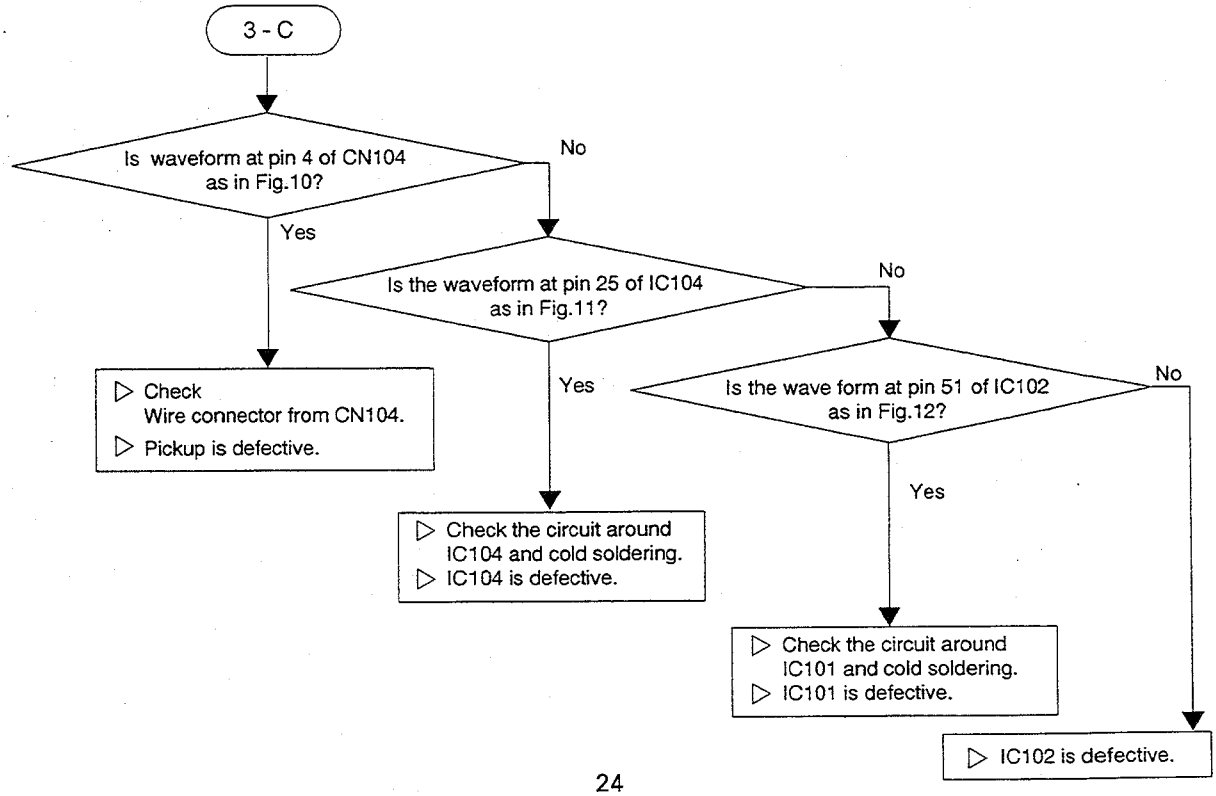


Fig. 9

[Repair item 3-C] Object lens of pickup unit does not move up and down.


3 - C
Is waveform at pin 4 of CN104 as in Fig.10?
No
Yes
Is the waveform at pin 25 of IC104 as in Fig.11?
No
Yes
▷ Check
Wire connector from CN104.
▷ Pickup is defective.
Is the wave form at pin 51 of IC102 as in Fig.12?
No
Yes
▷ Check the circuit around IC104 and cold soldering.
▷ IC104 is defective.
▷ Check the circuit around IC101 and cold soldering.
▷ IC101 is defective.
▷ IC102 is defective.

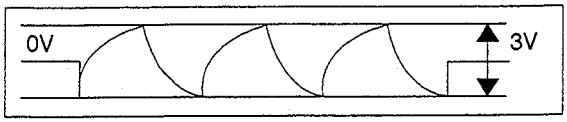


Fig.10

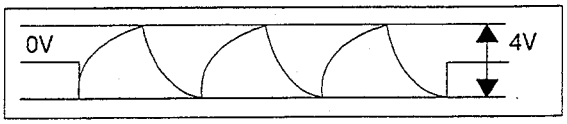


Fig.11

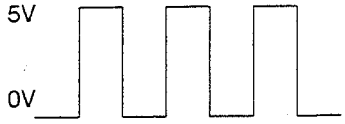
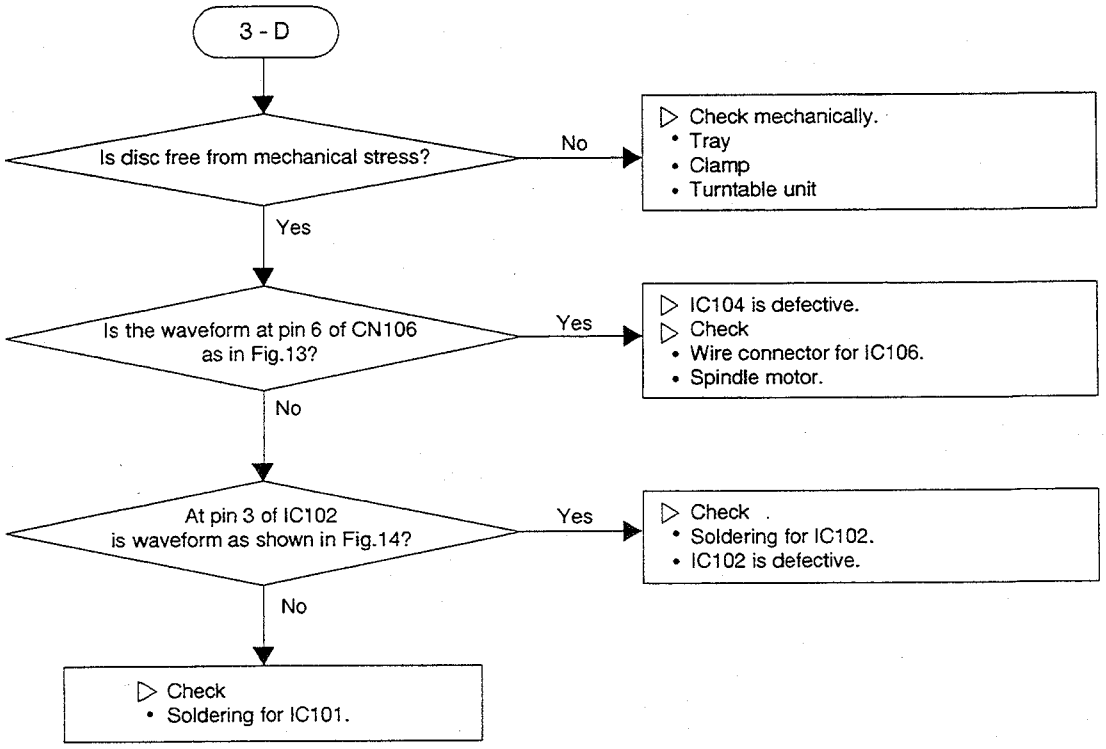


Fig.12

[Repair item 3-D] Spindle motor does not rotate.



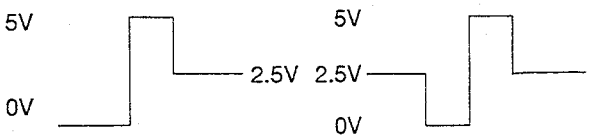
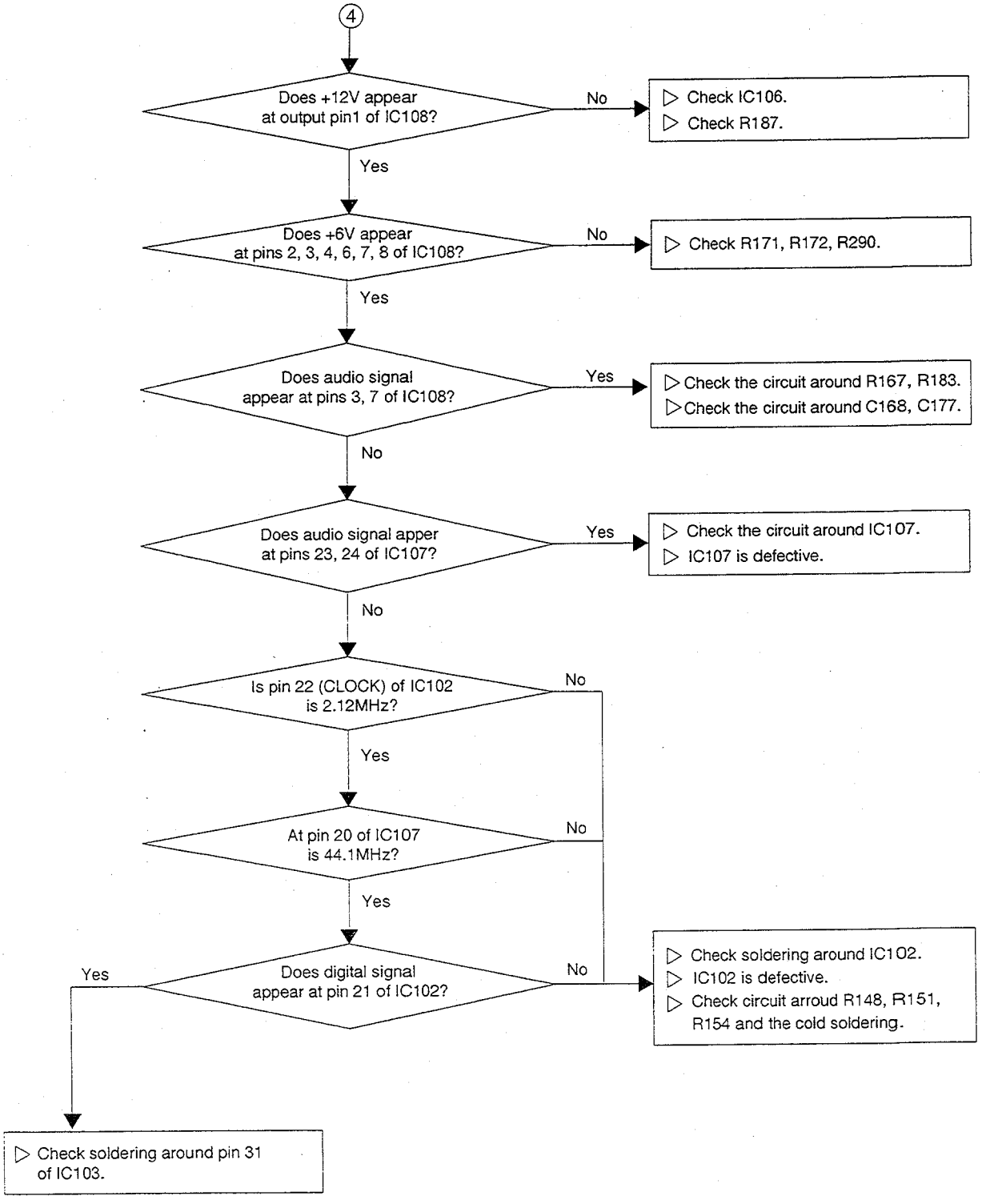


Fig.13 Fig.14

[Repair item 4] No sound signal.


4
Does +12V appear at output pin1 of IC108?
No
▷ Check IC106.
▷ Check R187.
Yes
Does +6V appear at pins 2, 3, 4, 6, 7, 8 of IC108?
No
▷ Check R171, R172, R290.
Yes
Does audio signal appear at pins 3, 7 of IC108?
Yes
▷ Check the circuit around R167, R183.
▷ Check the circuit around C168, C177.
No
Does audio signal apper at pins 23, 24 of IC107?
Yes
▷ Check the circuit around IC107.
▷ IC107 is defective.
No
Is pin 22 (CLOCK) of IC102 is 2.12MHz?
No
Yes
At pin 20 of IC107 is 44.1MHz?
No
Yes
Does digital signal appear at pin 21 of IC102?
No
▷ Check soldering around IC102.
▷ IC102 is defective.
▷ Check circuit arroud R148, R151, R154 and the cold soldering.
Yes
▷ Check soldering around pin 31 of IC103.

MECHANICAL PARTS LIST

Ref.No.	Description	Part No.	Q'ty	Version
	PACKAGE			
	Cushion Poly	9722029510	1	
	Cushion Poly	9722029610	1	
	Film Soft PE	9715000510	1	
	Poly Bag	9705001550	1	
	Box Carton	049605187101	1	
	Box Carton	049605187107	1	KS
	ACCESSORIES			
	Cord, RCA, 2P	4328200510	1	
	Cord, RCA, 1P	4328204510	1	
	Cord, Patch, 1P	4328201910	1	KS
	Demo Disk (CDG)	5058001010	1	KS
	Ass'y Commander	5408000611	1	
	Ass'y Commander	5408000612	1	KS
	Battery, 1.5V	5518001610	2	KS
	Manual Instruction	9007018191	1	
	Manual Instruction	9007018193	1	KS
	Manual Instruction	9007018194	1	D
	Manual Instruction	9007018195	1	E,PT INDO
	CABINET & CHASSIS			
1	Window, FL	8553022010	1	
2	Door, Tray	048562005811	1	
(2)	Door, Tray	048562005812	1	KS
3	Panel, Front	048501035611	1	
(3)	Panel, Front	048501035612	1	KS
4	Bracket, Power Switch	6505141910	1	
5	Badge, SHERWOOD	048535042011	1	
(5)	Badge, INKEL	048535045211	1	KS
6	Window, Sensor	8555051510	1	
7	Button, Power	8545126010	1	
8	Button, Tact, 5key	8543064610	1	
9	Button, Disc, 5key	8543066810	1	
10	Button, Search, 6key	048543069911	1	
11	Button, Disc Skip	048543066711	1	
12	Bracket, Phone	6505140610	1	
13	Chassis, Main	6121614510	1	
14	Foot, Hotstamping	046033102511	2	
(14)	Foot	046033102611	2	KS
15	Foot, Black	6035101510	2	
16	Cover, Chassis Fuse	6123017710	1	
17 ⚠	Power Transformer, 120 V, 60 Hz	2828100571	1	A
(17) ⚠	Power Transformer, 230 V, 50 Hz	2828100551	1	D
(17) ⚠	Power Transformer, 110/220 V, 50/60 Hz	2828100631	1	PT INDO
(17) ⚠	Power Transformer, 240 V, 50 Hz	2828100691	1	E
(17) ⚠	Power Transformer, 220 V, 60 Hz	2828100561	1	KS
18	Heatsink, Regulator	7505206110	1	
(18)	Heatsink, Regulator	7505206130	1	KS
19	Jack, RCA, 2P	4438111320	1	
20	Jack, RCA, Digi-Link	4438112010	1	
21	Chassis, Back	046102043521	1	A
(21)	Chassis, Back	046102043551	1	D
(21)	Chassis, Back	046102043561	1	E
(21)	Chassis, Back	046102043591	1	PT INDO
(21)	Chassis, Back	046102043511	1	KS
22 ⚠	Cord, Power AC	4308009210	1	A
(22) ⚠	Cord, Power AC	4308009510	1	D
(22) ⚠	Cord, Power AC	4308009910	1	E
(22) ⚠	Cord, Power AC	4308009510	1	PT INDO
(22) ⚠	Cord, Power AC	4308009310	1	KS
23	Adapter, AC, (PT INDO ONLY)	4428300410	1	PT INDO
24	Holder, Power Cord	6518002310	1	
25 ⚠	Switch, Selector, (PT INDO ONLY)	4618002310	1	PT INDO
26	Cover, Top	6122022030	1	
27	Assembly CD Mechanism	5728001210	1	
28	Cover, Rulette	048583005911	1	
29	Jack, Headphone with nut, 3P	4438005210	1	
(29)	Jack, Headphone with nut, 9P	4438005610	1	KS
30	Volume, Mic with nut	3208069210	1	
(30)	Volume, Mic with nut	3228018010	1	KS
31 ⚠	Switch, Push, Power	4628056010	1	
32	Switch, Tact	4658003710	18	
33	Holder, FIP	6163115810	1	
34	Jack, RCA, 1P	4328201910	1	KS(Only)
	ASSEMBLY CD MECHANISM	5728001210		
1	Body Mecha	6220600210	1	
2	Tray	6020800110	1	
3	Roulette	7121400410	1	
4	Base D.U	6022604310	1	
5	Clamp Chuck	7143104610	1	
6	Slider Right	7143202410	1	
7	Slider Left	7143202510	1	
8	Lever Chuck	7143104510	1	
9	Gear Loading	7103002110	1	
10	Gear Stopper	7103002210	1	
11	Gear Pulley	7103002310	2	
12	Gear Cam	7103002410	1	
13	Gear Skip	7103002510	1	
14	Pulley Skip	7115003510	1	
15	Worm	7105001010	1	
16	Bushing Skip	7015005010	2	
17	Roller Skip	7115003610	5	
18	Not Used !			
19	Pulley Motor	7113001310	3	

Ref.No.	Description	Part No.	Q'ty	Version
20	Base Magnet	6063103010	1	
21	Not Used !			
22	Frame Body	6122622810	1	
23	Bracket Skip Ass'y	6503031710	1	
24	Not Used !			
25	Guide Tray Ass'y	6143001310	2	
26	Cover magnet	6023408610	1	
27	Magnet	5125000910	1	
28	Rubber Damping	6715024510	4	
29	Belt Loading	7165002810	2	
30	Belt Skip	7165002820	1	
31	Rubber Wheel	6715026210	5	
32	Shaft Skip	7005008010	1	
33	Not Used !			
34	Spring Chuck	6555307610	1	
35	Spring Bar	6555900810	1	
36	Spring Damping	6555014010	4	
37	Not Used !			
38	Connector, Skip Ass'y 2P	5798100310	1	
39	Connector, Load Ass'y 5P	5798100309	2	
40	Wire FPC 6P	5798100308	1	
41	Not Used !			
42	PCB Mecha	4009500400	1	
43	Housing, 2P	4428525520	1	
44	Housing, 5P	4428516140	2	
45	Housing, 6P FPC	4428606965	2	
46	Housing, 16P FPC	4428616965	1	
R1	Resistor, 150ohm, 1/5W	3069151970	1	
R2	Resistor, 10kohm, 1/5W	3069103970	2	
R3	Resistor, 100ohm, 1/5W	3069101970	1	
J1	Jumper, 7.5mm	1508400602	6	
J2	Jumper, 10mm	1508400602	5	
47	Washer, Poly	8338301210	1	
48	Washer, Poly	8338300810	1	
49	Washer, Plain	8305003810	1	
50	Screw, Mecha	8155001210	1	
51	Screw, # 1 WPT 3x12Y	8159130121	1	
52	Screw, # 1 WPT 3x10Y	8159130101	10	
53	Screw, # 1 WPT 2.6x8Y	8159126081	3	
54	Screw, BM 2.6x5Y	8009126051	4	
55	Screw, BM 2x3Y	8009120031	2	
56	Screw, Damping	8155001610	4	
57	Screw, # 1 BT 2.6x8Y	8109126081	1	
58	Screw, # 1 BT 3x8Y	8109130081	5	
59	Screw, # 1 WPT 2.6x14Y	8159126141	1	
60	Washer Plain	8305001810	1	
61	Drive Unit, KSM 2101 ABM	5728001010	1	
62	Motor, RF-500TB-14415	5558200310	2	
63	Motor, RF-130SH-14230	5558200410	1	
64	Switch, Lever, SSCF-21004A	4638003410	2	
65	Photo Sensor, SG-23F1	2408001111	1	
66	Photo Sensor, ON-2173	2408210001	1	
	HARDWEAR KIT			
S1/S2	Screw, #1WPTC 3X12Y	8159130121	2	
S3-S21	Screw, #BTC 3X8B	8109230083	18	
S22-S29	Screw, #1WPTC 3X12Y	8159130121	8	
S30-S35	Screw, #BTC 3X8B	8109230083	6	
S36/S37	Screw, #1WPTC 3X12Y	8159130121	2	
S38-S43	Scre, #1PTC 3X10B	8119130103	6	
S44/S45	Not Used !			
S46-S49	Screw, #BSAM 4X8B	8109440083	4	
S50-S52	Screw, #BTC 3X8B	8109230083	3	
S53-S56	Screw, #1WPTC 3X12Y	8159130121	4	KS(Only)
	MISCELLANEOUS			
CT104	Lead Ass'y, 8P, 260mm, Mecha to Main B'D	435208266952	1	
CT105	Lead Ass'y, 8P, 260mm, Mecha to Main B'D	436308262042	1	
CT106	Lead Ass'y, 6P, 140mm, Mecha to Main B'D	436306142042	1	
CT114	FPC Cable, 16P, 120 mm	4118616125	1	
	Core, EMI, TC21A, 0.7uF Toroidal	2648707810	1	

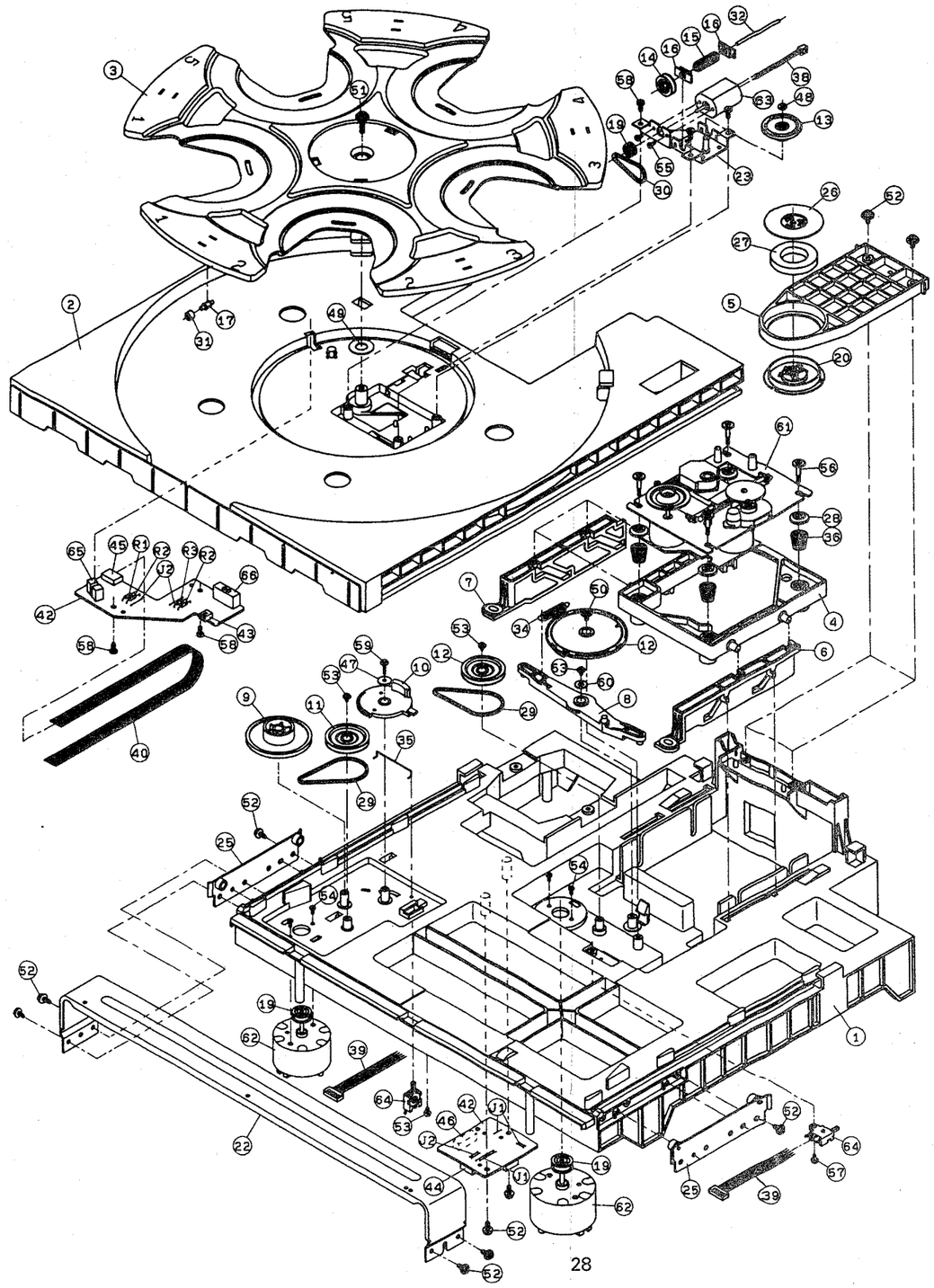
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the safety can be of special significance. When replacing a component identified with ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW I

Model No : CDC-6050R
CDCG-6050R

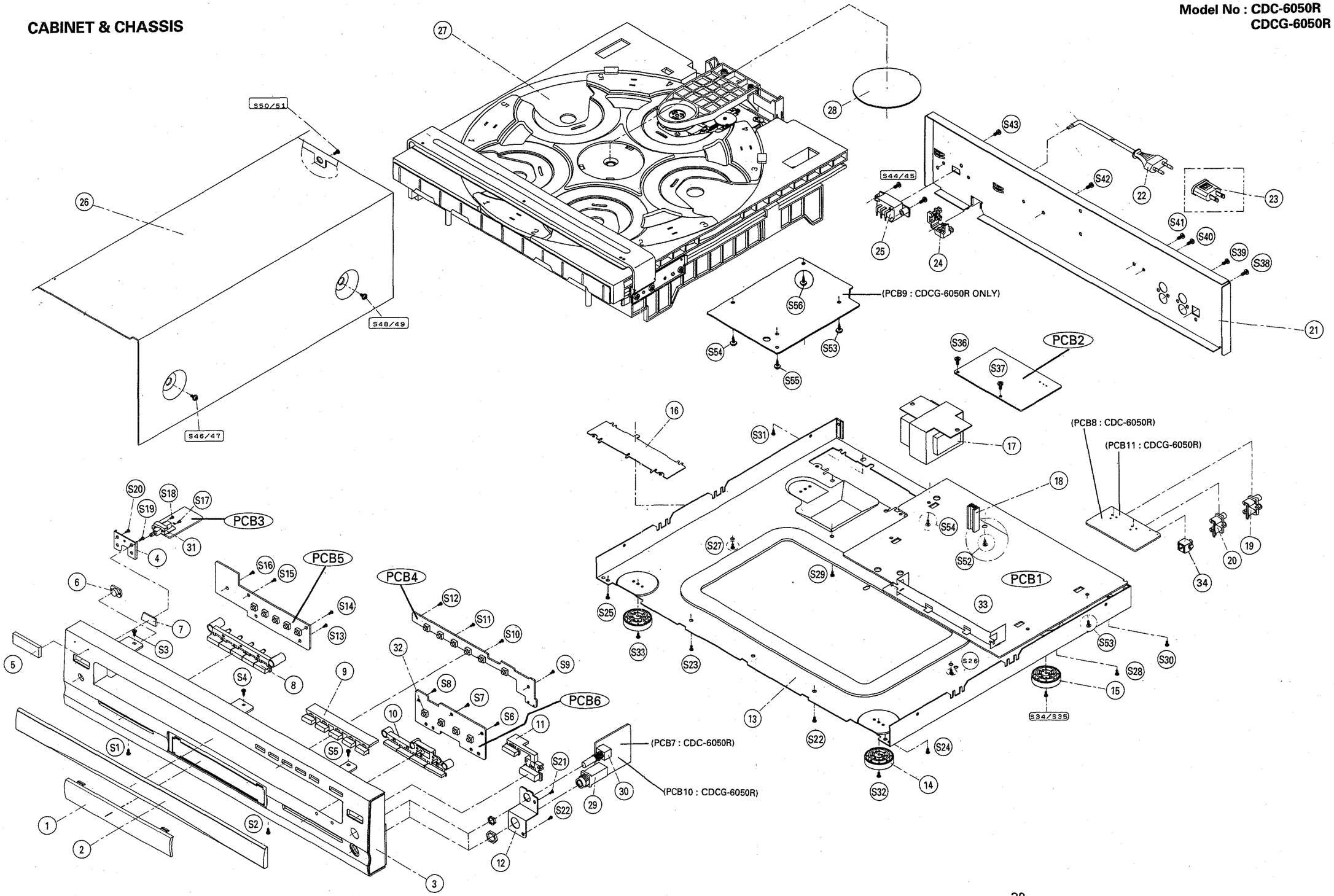
ASSEMBLY CD MECHANISM



EXPLODED VIEW II

Model No : CDC-6050R
CDCG-6050R

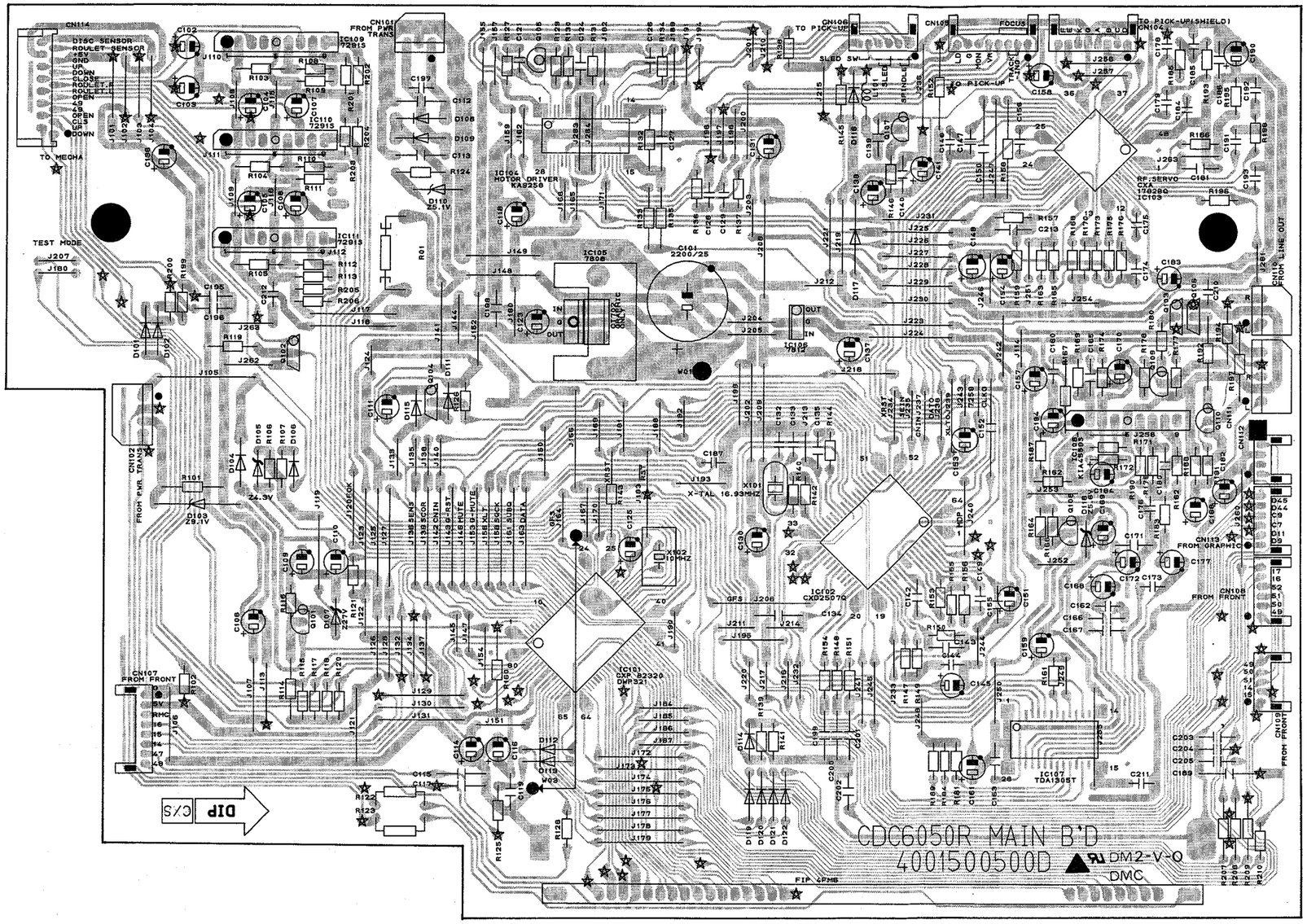
CABINET & CHASSIS



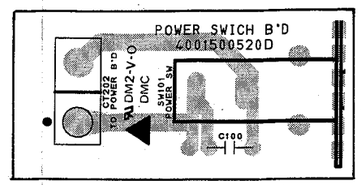
PRINTED CIRCUIT BOARD

Model No : CDC-6050R
CDCG-6050R

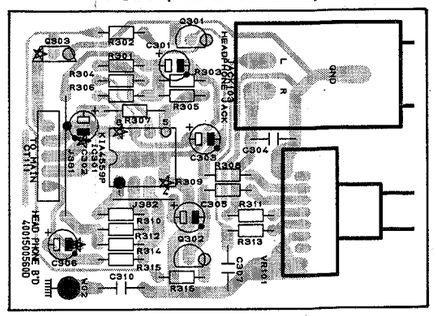
PCB1 (MAIN)



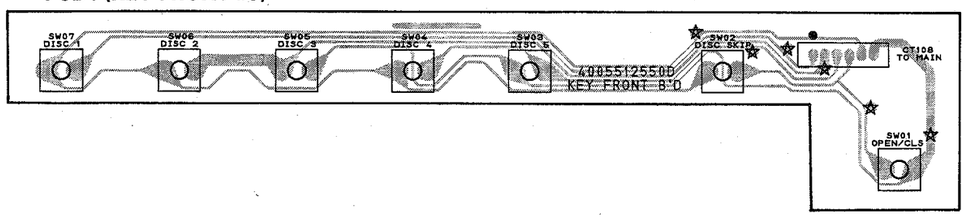
PCB3 (POWER SW)



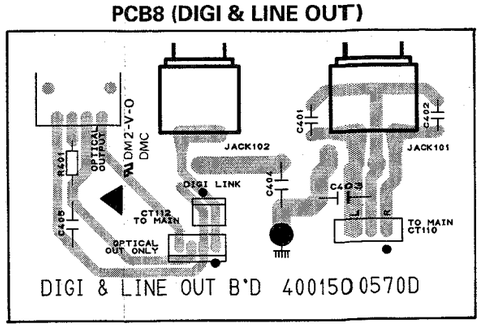
PCB7 (HEAD PHONE)



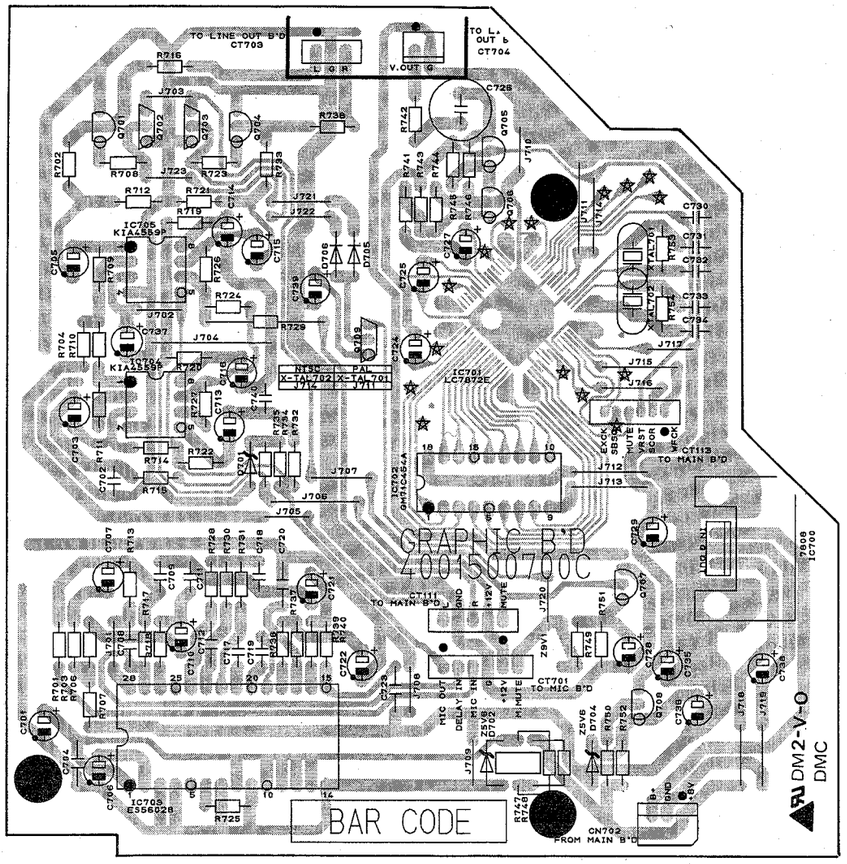
PCB4 (KEY FRONT #3)



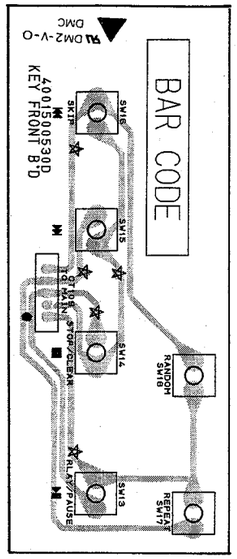
PCB8 (DIGI & LINE OUT)



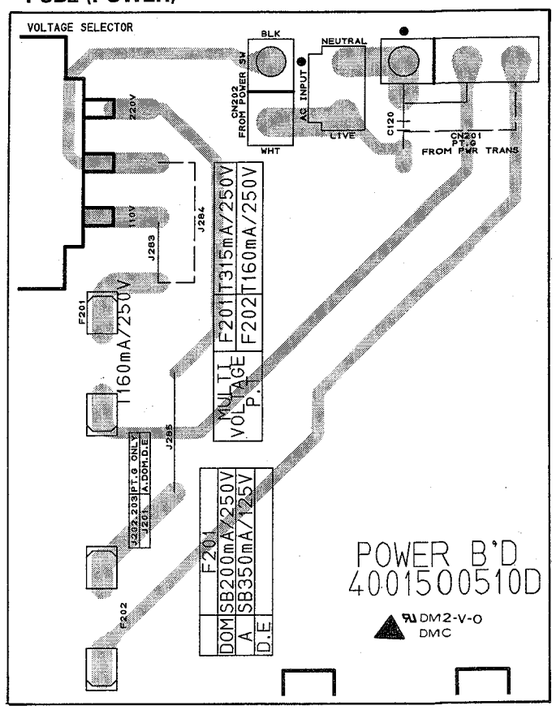
PCB9 (GRAPHIC CDCG6050R ONLY)



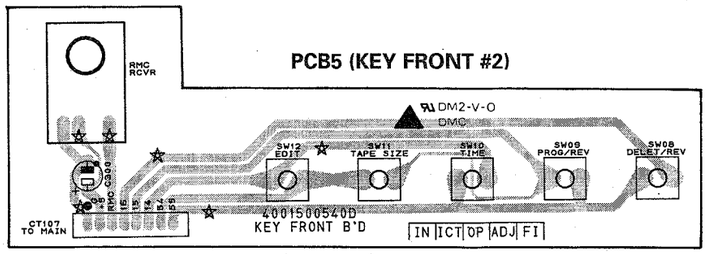
PCB4 (KEY FRONT #1)



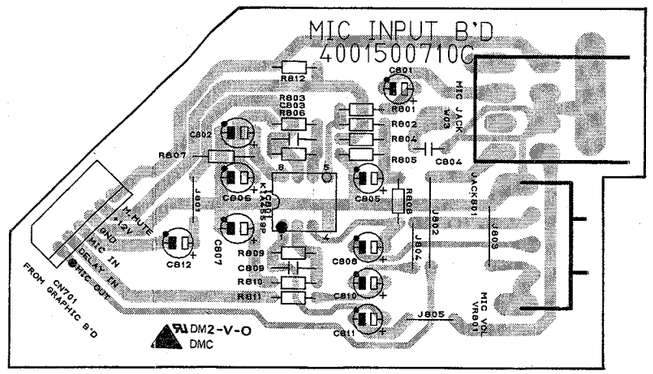
PCB2 (POWER)



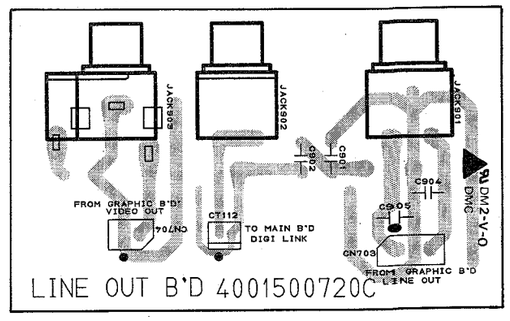
PCB5 (KEY FRONT #2)



PCB10 (MIC INPUT : CDCG 6050R ONLY)



PCB11 (LINE OUT : CDCG 6050R ONLY)



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE : Products marked with ⚠ have special characteristics important to safety.
If you replace any of these components, read carefully the product safty notice in this manual.
Don't degrade the safety of the product through improper servicing.
Resistor/Capacitor tolerance – D : (±0.5%), J : (±5%), K : (±10%), M : (±20%), Z : +80, – 20%)

Ref.No.	Description					Part No.	Q'ty	Version
PCB1	ASSEMBLY P.C.BOARD MAIN							
	CAPACITORS							
C101 ⚠	Electrolytic SG	2200	uF	25 V	M	3409322249	1	
C102-C108	Electrolytic SG	100	uF	10 V	M	3479310121	7	
C109/C110	Electrolytic SG	22	uF	50 V	M	3479322071	2	
C111	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C112/C113	Ceramic Tubular	0.022	uF	50 V	J	3519223935	2	
C114	Electrolytic SG	22	uF	50 V	M	3479322071	1	
C115	Ceramic Tubular	150	pF	50 V	J	3519151935	1	
C116	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C117	Ceramic Tubular	150	pF	50 V	J	3519151935	1	
C118	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C119	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C121	Ceramic Disc	0.1	uF	50 V	Z	3579104530	1	
C123	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C124	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C125	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C126	Ceramic Disc	0.1	uF	50 V	Z	3579104530	1	
C127	CeramicTubular	0.01	uF	50 V	J	3519103935	1	
C128/C129	Ceramic Disc	0.1	uF	50 V	Z	3579104530	2	
C130	Electrolytic SG	47	uF	10 V	M	3479347021	1	
C131	Electrolytic SG	470	uF	6.3 V	M	3479347111	1	
C132/C133	Ceramic Disc CH	33	pF	50 V	J	3528330210	2	
C134	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C135	Ceramic Tubular	22	pF	50 V	J	3519220935	1	
C136	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C137	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C138	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C139	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C140	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C141	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C142	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C143	Ceramic Tubular	220	pF	50 V	J	3519221935	1	
C144	Mylar	0.01	uF	100 V	J	3679103120	1	
C145	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C146	Mylar	0.01	uF	100 V	J	3679103120	1	
C147	Mylar	0.033	uF	100 V	J	3679333120	1	
C148	Electrolytic SG	22	uF	50 V	M	3479322071	1	
C149	Mylar	0.047	uF	100 V	J	3679473120	1	
C150	Ceramic Tubular	0.01	uF	50 V	J	3519103935	1	
C151	Electrolytic SG	47	uF	10 V	M	3479347021	1	
C152	Ceramic Tubular	0.01	uF	50 V	J	3519103935	1	
C153	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C154	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C155	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C156	Mylar	0.033	uF	100 V	J	3679333120	1	
C157	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C158	Electrolytic SG	33	uF	16 V	M	3479333031	1	
C159	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C160	Mylar	0.002	uF	100 V	J	3679222120	1	
C161	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C162	Mylar	0.001	uF	100 V	J	3679102120	1	
C163	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C164	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C165	Ceramic Tubular	220	pF	50 V	J	3519221935	1	
C166/C167	Ceramic Tubular	470	pF	50 V	J	3519471935	2	
C168	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C169	Electrolytic SG	47	uF	10 V	M	3479347021	1	
C170	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C171	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C172	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C173	Mylar	0.001	uF	100 V	J	3679102120	1	
C174	Mylar	0.047	uF	100 V	J	3679473120	1	
C175	Mylar	0.033	uF	100 V	J	3679333120	1	
C176	Mylar	0.002	uF	100 V	J	3679222120	1	
C177	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C178	Mylar	0.01	uF	100 V	J	3679103120	1	
C179	Mylar	0.022	uF	100 V	J	3679223120	1	
C180	Ceramic Tubular	220	pF	50 V	J	3519221935	1	
C181	Ceramic Tubular	2200	pF	16 V	J	3519222935	1	
C182	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C183	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C184	Mylar	0.1	uF	63 V	K	3679104297	1	
C185	Mylar	0.01	uF	100 V	J	3679103120	1	
C186	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C187	Ceramic Disc	0.047	uF	50 V	Z	3579473530	1	
C188	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C189	Ceramic Tubular	150	pF	50 V	J	3519151935	1	
C190	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C191-C193	Mylar	0.1	uF	63 V	K	3679104297	3	
C194	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C195/C196	Ceramic Tubular	220	pF	50 V	J	3519221935	2	
C197	Ceramic Disc	0.1	uF	50 V	Z	3579104530	1	
C198	Ceramic Tubular	0.022	uF	50 V	J	3519223935	1	
C199	Ceramic Tubular	5.6	pF	50 V	J	3519056935	1	
C200	Ceramic Tubular	100	pF	50 V	J	3519101935	1	
C201	Ceramic Tubular	5.6	pF	50 V	J	3519056935	1	
C202	Ceramic Tubular	220	pF	50 V	J	3519221935	1	
C203/C204	Ceramic Tubular	150	pF	50 V	J	3519151935	2	
C205	Ceramic Tubular	150	pF	50 V	J	3519151935	1	
C210-C212	Ceramic Disc	0.1	uF	50 V	Z	3579104530	3	
C213	Ceramic Tubular	0.01	uF	50 V	J	3519103935	1	

Ref.No.	Description					Part No.	Q'ty	Version
	CONNECTORS							
CN101	Wafer, 3P, Angle, from Power Trans.					4428513430	1	
CN102	Wafer, 4P, Angle, from Power Trans.					4428513440	1	
CN104	Wafer, 8P, Angle, from Mecha					4428525580	1	
CN105	Wafer, 8P, Angle, from Mecha					4428525580	1	
CN106	Wafer, 6P, Angle, from Mecha					4428525560	1	
CN107	Wafer, 8P, Angle, from Front B'D					4428525580	1	
CN108	Wafer, 6P, Angle, from Front B'D					4428525560	1	
CN109	Wafer, 5P, Angle, from Front B'D					4428525550	1	
CN110	Wafer, 3P, Angle, from Lineout B'D					4428513430	1	
CN111	Wafer, 5P, Angle, from Headphone B'D					4428513450	1	
CN112	Wafer, 2P, Angle, from Lineout B'D					4428525520	1	
CN113	Not Used !							
CN114	Wafer, 16P,FPC,Angle					4426001116	1	
	DIODES							
D101/D102	1N4148, Switching					2058322101	2	
D103	Zener, UZ 9.1BSB					2258599107	1	
D104	1N4002, Rectifier					2258100135	1	
D105	Zener, UZ 4.3BSB					2258599102	1	
D106	1N4148, Switching					2058322101	1	
D107	Zener, UZ 27BSB					2258599115	1	
D108/D109	1N4002, Rectifier					2258100135	2	
D110	Zener, UZ 5.1BSB					2258599103	1	
D111-D117	1N4148, Switching					2058322101	7	
D118	Zener, UZ 5.6BSB					2258599104	1	
D119-D122	1N4148, Switching					2058322101	4	
	INTEGRETED CIRCUITS							
IC101	CXP82320, CPU, DWP321					2138322191	1	
IC102	CXD2507Q					2138022120	1	
IC103	CXA1782BQ					2138022117	1	
IC104	KA9258					2168202120	1	
IC105	KA7808, Regulator					2168602101	1	
IC106	KA7812, Regulator					2168606104	1	
IC107	TDA1305T, DAC/Filter					2138029001	1	
IC108	KIA4559S/KIA75559S, OP Amp					2168206103	1	
IC109-IC111	TA7291S, Motor Control					2168007204	3	
	RESISTORS							
R01	Metal Film	150	ohm	2 W	J	3029151570	1	
R101	Carbon Film	12	kohm	1/5 W	J	3069123970	1	
R102	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R103-R105	Metal Film	1	ohm	1/5 W	J	3029109970	3	
R106	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R107	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R108	Carbon Film	2.7	kohm	1/5 W	J	3069272970	1	
R109	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R110	Carbon Film	3	kohm	1/5 W	J	3069302970	1	
R111	Carbon Film	2.2	kohm	1/5 W	J	3069222970	1	
R112	Carbon Film	2.7	kohm	1/5 W	J	3069272970	1	
R113	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R114/R115	Carbon Film	47	kohm	1/5 W	J	3069473970	2	
R116	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R117/R118	Carbon Film	47	kohm	1/5 W	J	3069473970	2	
R119	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R120/R121	Carbon Film	47	kohm	1/5 W	J	3069473970	2	
R122/R123	Metal Film	2.2	ohm	1/5 W	J	3029229970	2	
R124	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R125	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R126	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R127	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R128	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R129	Carbon Film	4.7	ohm	1/5 W	J	3069479970	1	
R130	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R131	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R132/R133	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R134	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R135	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R136/R137	Metal Film	10	ohm	1/5 W	J	3029100970	2	
R138	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R139	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R140	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R141	Carbon Film	220	kohm	1/5 W	J	3069224970	1	
R142	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R143	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R144	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R145	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R146	Metal Film	22	ohm	1/5 W	J	3029220970	1	
R147	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R148	Metal Film	680	ohm	1/5 W	J	3029681970	1	
R149	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R150	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R151	Metal Film	680	ohm	1/5 W	J	3029681970	1	
R152	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R153	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R154	Metal Film	680	ohm	1/5 W	J	3029681970	1	
R155/R156	Carbon Film	3.3	kohm	1/5 W	J	3069332970	2	
R157	Carbon Film	82	kohm	1/5 W	J	3069823970	1	
R158	Carbon Film	39	kohm	1/5 W	J	3069393970	1	
R159	Carbon Film	8.2	kohm	1/5 W	J	3069822970	1	
R160	Carbon Film	47	kohm	1/5 W	J	3069473970	1	

Ref.No.	Description	Part No.	Q'ty	Version
R161	Carbon Film 10 kohm 1/5 W J	3069103970	1	
R162	Carbon Film 22 kohm 1/5 W J	3069223970	1	
R163	Carbon Film 15 kohm 1/5 W J	3069153970	1	
R164	Metal Film 820 ohm 1/5 W J	3029821970	1	
R165	Carbon Film 82 kohm 1/5 W J	3069823970	1	
R166	Metal Film 100 ohm 1/5 W J	3029101970	1	
R167	Carbon Film 6.2 kohm 1/5 W J	3069622970	1	
R168	Carbon Film 120 kohm 1/5 W J	3069124970	1	
R169	Carbon Film 7.5 kohm 1/5 W J	3069752970	1	
R170	Carbon Film 24 kohm 1/5 W J	3069243970	1	
R171	Carbon Film 22 kohm 1/5 W J	3069223970	1	
R172	Carbon Film 47 kohm 1/5 W J	3069473970	1	
R173	Carbon Film 24 kohm 1/5 W J	3069243970	1	
R174	Carbon Film 7.5 kohm 1/5 W J	3069752970	1	
R175	Carbon Film 75 kohm 1/5 W J	3069753970	1	
R176	Carbon Film 470 kohm 1/5 W J	3069474970	1	
R177	Carbon Film 100 kohm 1/5 W J	3069104970	1	
R178	Metal Film 1 kohm 1/5 W J	3029102970	1	
R179	Carbon Film 7.5 kohm 1/5 W J	3069752970	1	
R180	Metal Film 1 kohm 1/5 W J	3029102970	1	
R181	Carbon Film 10 kohm 1/5 W J	3069103970	1	
R182	Carbon Film 7.5 kohm 1/5 W J	3069752970	1	
R183	Carbon Film 6.2 kohm 1/5 W J	3069622970	1	
R184	Carbon Film 10 kohm 1/5 W J	3069103970	1	
R185	Carbon Film 100 kohm 1/5 W J	3069104970	1	
R186	Carbon Film 20 kohm 1/5 W J	3069203970	1	
R187	Metal Film 100 ohm 1/5 W J	3029101970	1	
R188	Carbon Film 100 kohm 1/5 W J	3069104970	1	
R189	Carbon Film 10 kohm 1/5 W J	3069103970	1	
R190	Carbon Film 47 kohm 1/5 W J	3069473970	1	
R191/R192	Metal Film 1 kohm 1/5 W J	3029102970	2	
R193	Carbon Film 100 kohm 1/5 W J	3069104970	1	
R194	Metal Film 470 ohm 1/5 W J	3029471970	1	
R195	Carbon Film 10 kohm 1/5 W J	3069103970	1	
R196	Carbon Film 68 kohm 1/5 W J	3069683970	1	
R197	Metal Film 470 ohm 1/5 W J	3029471970	1	
R198	Carbon Film 680 kohm 1/5 W J	3069684970	1	
R199	Metal Film 1 kohm 1/5 W J	3029102970	1	
R200	Metal Film 1 kohm 1/5 W J	3029102970	1	
R201-R206	Carbon Film 47 kohm 1/5 W J	3069473970	6	
R207-R210	Metal Film 1 kohm 1/5 W J	3029102970	4	
	TRANSISTORS			
Q101	BTKA1266/KTA1015, PNP	2208206105	1	
Q102	DTC114YA/KRA107M	2208622106	1	
Q103	DTA114YS	2208222105	1	
Q104	DTC114YA/KRA107M	2208622106	1	
Q105	MPSA56Y, PNP	2208206113	1	
Q106	DTA114YS	2208222105	1	
Q107	BTKA1266/KTA1015, PNP	2208206105	1	
Q108	BKTC3198Y/KTC1815, NPN	2208606104	1	
Q109	KTD1302B, NPN	2208606112	1	
Q110	KTD1302B, NPN	2208606112	1	
	MISCELLANEOUS			
L101	Inductor, 10uH	2648610082	1	
X101	Crystal, 16.9344MHz	3938101500	1	
X102	Resonator, CST10.00MTW	3938131750	1	
FL	FIP 4EM6	2328130321	1	
18	Heatsink, Regulator	7505206110	1	
33	Holder, FIP	6163115810	1	
			1	
PCB2	**ASSEMBLY P.C.BOARD POWER**			
CN201	FROM PWR TRANS	4428525780	1	
C120	Ceramic Disc Shor 0.0047 uF 400 V J	3549472411	1	
F201	Fuse, SB, 350 mA, 125 V	5508105221	1	A
(F201)	Fuse, T, 315 mA, 250 V	5508301035	1	PT INDO
(F201)	Fuse, T, 160 mA, 250 V	5508301035	1	D,E
(F201)	Fuse, SB, 200 mA, 250 V	5508101130	1	KS
F202	Fuse, T, 160 mA, 250 V	5508301035	1	PT INDO
	Clip, Fuse	4255001010	4	PT INDO
	Clip, Fuse	4255001010	2	
	Wafer, AC, 2P, from AC Cord	4428100281	1	A
	Wafer, AC, 2P, from AC Cord	4428100291	1	
PCB3	**ASSEMBLY P.C.BOARD POWER SWITCH**			
C100	Ceramic Disc Shor 0.0047 uF 400 V J	3549472411	1	
CT202	Lead Ass'y, 2P, 350mm, to Power B'D	435402353519	1	A
(CT202)	Lead Ass'y, 2P, 350mm, to Power B'D	435402353559	1	
31	Switch, Push, Power	4628056010	1	
PCB4	**ASSEMBLY P.C.BOARD KEY FRONT #1**			
CT109	Lead Ass'y, 5P, 100mm, to Power B'D	436205103332	1	
32	Switch, Tact	4658003710	6	
PCB5	**ASSEMBLY P.C.BOARD KEY FRONT #2**			
C300	Electrolytic SG 100 uF 10 V M	3479310121	1	
CT107	CNT ASS'Y 8P TO MAIN B'D	436206123332	1	
RCVR	Remote Sensor, TFMT5380, 38 kHz	2406005001	1	
32	Switch, Tact	4658003710	5	
PCB6	**ASSEMBLY P.C.BOARD KEY FRONT #3**			
CT108	Lead Ass'y, 6P, 240mm, to Main B'D	436206243332	1	
32	Switch, Tact	4658003710	7	

Ref.No.	Description	Part No.	Q'ty	Version
PCB7	**ASSEMBLY P.C.BOARD HEADPHONE**			
C301	Electrolytic SG 100 uF 10 V M	3479310121	1	
C302/C303	Electrolytic SG 10 uF 50 V M	3479310071	2	
C304	Ceramic Tubular 560 pF 50 V J	3519561935	1	
C305/C306	Electrolytic SG 10 uF 50 V M	3479310071	2	
C307	Ceramic Tubular 560 pF 50 V J	3519561935	1	
C310	Ceramic Tubular 0.022 uF 50 V J	3519223935	1	
IC301	KTA4559P/KIA75559P, OP Amp	2168206104	1	
R301	Carbon Film 2.7 kohm 1/5 W J	3069272970	1	
R302	Metal Film 1 kohm 1/5 W J	3029102970	1	
R303	Carbon Film 22 kohm 1/5 W J	3069223970	1	
R304	Metal Film 470 ohm 1/5 W J	3029471970	1	
R305	Carbon Film 47 kohm 1/5 W J	3069473970	1	
R306	Carbon Film 22 kohm 1/5 W J	3069223970	1	
R307	Metal Film 1 kohm 1/5 W J	3029102970	1	
R308/R309	Metal Film 22 ohm 1/5 W J	3029220970	2	
R310	Metal Film 470 ohm 1/5 W J	3029471970	1	
R311	Metal Film 56 ohm 1/5 W J	3029560970	1	
R312	Carbon Film 2.7 kohm 1/5 W J	3069272970	1	
R313	Metal Film 56 ohm 1/5 W J	3029560970	1	
R314	Carbon Film 47 kohm 1/5 W J	3069473970	1	
R315/R316	Metal Film 1 kohm 1/5 W J	3029102970	2	
Q301/Q302	KTD1302B, NPN	2208606112	2	
Q303	DTA114YS	2208222105	1	
29	Jack, Headphone with nut, 9P	4438005610	1	
30	Volume, Mic with nut	3228018010	1	
PCB8	**ASSEMBLY P.C.BOARD DIGI & LINE OUT**			
C401/C402	Mylar 0.002 uF 100 V J	3679222120	2	
C403-C405	Ceramic Tubular 0.022 uF 50 V J	3519223935	3	
CT110	Lead Assy, 3P, 260mm, to Main B'D	436103263331	1	
CT112	Lead Ass'y, 2P, 350mm, to Main B'D	436202357732	1	
(CT112)	Lead Ass'y, 4P, 350mm, to main B'D (Optical out only)	436204358332	1	
R401	CarbonFilm 8.2 kohm 1/5 W J	3069822970	1	
19	Jack, RCA, 2P	4438111320	1	
20	Jack, RCA, Digi-Link	4438112010	1	
PCB9	**ASSEMBLY P.C.BOARD GRAPHIC (CDCG-6050R ONLY)**			
	CAPACITORS			
C701	Electrolytic SG 100 uF 10 V M	3479310121	1	
C702	Mylar 0.006 uF 100 V J	3679562120	1	
C703	Electrolytic SG 1 uF 50 V M	3479310971	1	
C704	CeramicTubular 0.022 uF 50 V J	3519223935	1	
C705	Electrolytic SG 10 uF 50 V M	3479310071	1	
C706	Electrolytic SG 47 uF 10 V M	3479347021	1	
C707	Electrolytic SG 4.7 uF 50 V M	3479347971	1	
C708	CeramicTubular 560 pF 50 V J	3519561935	1	
C709	Mylar 0.0056 uF 100 V J	3679562120	1	
C710	Electrolytic SG 4.7 uF 50 V M	3479347971	1	
C711	Mylar 0.033 uF 100 V J	3679333120	1	
C712	CeramicTubular 560 pF 50 V J	3519561935	1	
C713	Electrolytic SG 1 uF 50 V M	3479310971	1	
C714	Electrolytic SG 47 uF 16 V M	3479347031	1	
C715	Electrolytic SG 10 uF 50 V M	3479310071	1	
C716	Electrolytic SG 47 uF 16 V M	3479347031	1	
C717	Mylar 0.047 uF 100 V J	3679473120	1	
C718	Mylar 0.0056 uF 100 V J	3679562120	1	
C719	Mylar 0.047 uF 100 V J	3679473120	1	
C720	Ceramic Tubular 0.01 uF 50 V J	3519103935	1	
C721/C722	Electrolytic SG 0.33 uF 50 V M	3479333871	2	
C723	CeramicTubular 0.01 uF 50 V J	3519103935	1	
C724	Electrolytic SG 100 uF 10 V M	3479310121	1	
C725	Electrolytic SG 33 uF 16 V M	3479333031	1	
C726	Electrolytic SG 470 uF 6.3 V M	3479347111	1	
C727	Electrolytic SG 47 uF 16 V M	3479347031	1	
C728/C729	Electrolytic SG 100 uF 10 V M	3479310121	2	
C730	Ceramic Disc 0.1 uF 50 V Z	3579104530	1	
C731-C734	Ceramic Disc CH 33 pF 50 V J	3528330210	4	
C735/C736	Electrolytic SG 47 uF 10 V M	3479347021	2	
C737	Electrolytic SG 100 uF 10 V M	3479310121	1	
C738	Electrolytic SG 1 uF 50 V M	3479310971	1	
C739	Electrolytic SG 4.7 uF 50 V M	3479347971	1	
C740	Mylar 0.006 uF 100 V J	3679562120	1	
	CONNECTORS			
CT701	Lead Ass'y, 6P, 180mm, to Mic B'D	436106183331	1	
CT702	Wafer, 3P, from Main B'D	4428513430	1	
CT703	Lead Ass'y, 3P, 100mm, to Lineout B'D	436103103331	1	
CT704	Lead Ass'y, 2P, 100mm, to Lineout B'D	436102107731	1	
CT111	Lead Ass'y, 5P, 160mm, to Main B'D	436105163331	1	
CT113	Lead Ass'y, 6P, 300mm, to main B'D	436206303332	1	
	DIODES			
D701	Zener, UZ 5.1BSB	2258599103	1	
D702	Zener, UZ 5.6BSB	2258599104	1	
D703	Zener, UZ 9.1BSB	2258599107	1	
D704	Zener, UZ 5.6BSB	2258599104	1	
D705/D706	1N4148, Switching	2058322101	2	
	INTEGRETED CIRCUITS			
IC700	KA7808, Regulator	2168602101	1	
IC701	LC7872E	2138017139	1	
IC702	GM71C454A,DRAM	2138031001	1	
IC703	ES56028, Digital Echo	2138633001	1	
IC704/IC705	KTA4559P/KIA75559P, OP Amp	2168206104	2	

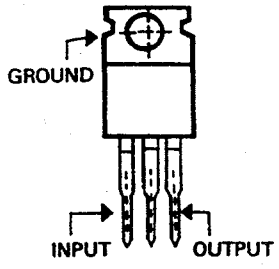
Ref.No.	Description						Part No.	Q'ty	Version
	RESISTORS								
R701	Carbon Film	15	kohm	1/5W	J		3069153970	1	
R702	Metal Film	470	ohm	1/5W	J		3029471970	1	
R703	Carbon Film	8.2	kohm	1/5W	J		3069822970	1	
R704	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R706	Carbon Film	10	kohm	1/5W	J		3069103970	1	
R707	Carbon Film	15	kohm	1/5W	J		3069153970	1	
R708	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R709	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R710	Metal Film	2.7	kohm	1/5W	J		3029272970	1	
R711	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R712	Carbon Film	100	kohm	1/5W	J		3069104970	1	
R713/R714	Carbon Film	10	kohm	1/5W	J		3069103970	2	
R715/R716	Metal Film	1	kohm	1/5W	J		3029102970	2	
R717	Carbon Film	15	kohm	1/5W	J		3069153970	1	
R718	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R719/R720	Metal Film	100	ohm	1/5W	J		3029101970	2	
R721	Metal Film	100	kohm	1/5W	J		3029104970	1	
R722	Carbon Film	10	kohm	1/5W	J		3069103970	1	
R723	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R724	Metal Film	2.7	kohm	1/5W	J		3029272970	1	
R725	Carbon Film	27	kohm	1/5W	J		3069273970	1	
R726/R727	Metal Film	3.3	kohm	1/5W	J		3029332970	2	
R728	Carbon Film	15	kohm	1/5W	J		3069153970	1	
R729	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R730	Carbon Film	10	kohm	1/5W	J		3069103970	1	
R731	Carbon Film	15	kohm	1/5W	J		3069153970	1	
R732	Metal Film	1	kohm	1/5W	J		3029102970	1	
R733	Metal Film	470	ohm	1/5W	J		3029471970	1	
R734	Carbon Film	10	kohm	1/5W	J		3069103970	1	
R735	Metal Film	680	kohm	1/5W	J		3029681970	1	
R736	Carbon Film	7.5	kohm	1/5W	J		3069752970	1	
R737	Carbon Film	75	kohm	1/5W	J		3069753970	1	
R738	Metal Film	1	kohm	1/5W	J		3029102970	1	
R739	Carbon Film	7.5	kohm	1/5W	J		3069752970	1	
R740	Carbon Film	75	kohm	1/5W	J		3069753970	1	
R741/R742	Metal Film	75	ohm	1/5W	J		3029750970	2	
R743/R744	Metal Film	4.7	kohm	1/5W	J		3029472970	2	
R745	Metal Film	1	kohm	1/5W	J		3029102970	1	
R746	Metal Film	220	ohm	1/5W	J		3029221970	1	
R747/R748	Metal Film	22	ohm	1/5W	J		3029220970	2	
R749	Metal Film	3.3	kohm	1/5W	J		3029332970	1	
R750	Metal Film	10	ohm	1/5W	J		3029100970	1	
R751	Carbon Film	51	kohm	1/5W	J		3069513970	1	
R752	Metal Film	220	ohm	1/5W	J		3029221970	1	
R753/R754	Carbon Film	1	Mohm	1/5W	J		3069105970	2	
	TRANSISTORS								
Q701	2SD1302						2208606112	1	
Q702/Q703	DTA114YS						2208222105	2	
Q704	2SD1302						2208606112	1	
Q705	BKTC3199Y						2208610109	1	
Q706	BTKA1266/KTA1015, PNP						2208206105	1	
Q707/Q708	BKTC3199Y						2208610109	2	
Q709	DTA114YS						2208222105	1	
	MISCELLANEOUS								
X-TAL702	Crystal, 14.3198MHz						3938201950	1	
PCB10	ASSEMBLY P.C.BOARD MIC INPUT (CDCG-6050R ONLY)								
	CAPACITORS								
C801	Electrolytic SG	1	uF	50 V	M		3479310971	1	
C802	Electrolytic SG	100	uF	10 V	M		3479310121	1	
C803	Ceramic Tubular	220	pF	50 V	J		3519221935	1	
C804	Ceramic Tubular	470	uF	50 V	J		3519471935	1	
C805/C806	Electrolytic SG	10	uF	50 V	M		3479310071	2	
C807	Electrolytic SG	10	uF	50 V	M		3479310071	1	
C808	Electrolytic SG	4.7	uF	50 V	M		3479347971	1	
C809	Ceramic Tubular	470	pF	50 V	J		3519471935	1	
C810-C812	Electrolytic SG	4.7	uF	50 V	M		3479347971	3	
	INTEGRETED CIRCUIT								
IC801	KTA4559P/KIA75559P, OP Amp						2168206104	1	
	RESISTORS								
R801	Metal Film	4.7	kohm	1/5W	J		3029472970	1	
R802	Carbon Film	47	kohm	1/5W	J		3069473970	1	
R803	Metal Film	560	ohm	1/5W	J		3029561970	1	
R804/R805	Metal Film	3.3	kohm	1/5W	J		3029332970	2	
R806	Carbon Film	18	kohm	1/5W	J		3069183970	1	
R807	Metal Film	22	ohm	1/5W	J		3029220970	1	
R808	Carbon Film	47	kohm	1/5W	J		3069473970	1	
R809	Metal Film	4.7	kohm	1/5W	J		3029472970	1	
R810	Metal Film	910	ohm	1/5W	J		3029911970	1	
R811	Carbon Film	10	kohm	1/5W	J		3069103970	1	
R812	Carbon Film	3.3	kohm	1/5W	J		3069332970	1	
	MISCELLANEOUS								
CN701	CNT Plug, 6P, From Graphic B'D						4428513460	1	
29	Jack, Headphone						4438005210	1	
30	Volume, Mic						3208069210	1	

Ref.No.	Description						Part No.	Q'ty	Version
PCB11	ASSEMBLY P.C.BOARD LINE OUT (CDCG-6050R ONLY)								
C901/C902	Ceramic Disc	0.047	uF	50 V	Z		3579473530	2	
C904/C905	Mylar	0.002	uF	100 V	J		3679222120	2	
CT112	Lead Ass'y, 2P, 350mm, to Main B'D						436202357732	1	
CN703	Wafer, 3P, from Graphic B'D						4428505710	1	
CN704	Wafer, 2P, from Graphic B'D						4428508210	1	
19	Jack, RCA, 2P						4438111320	1	
20	Jack, RCA, Digi-Link						4438112010	1	
34	Jack, RCA, 1P						4328201910	1	

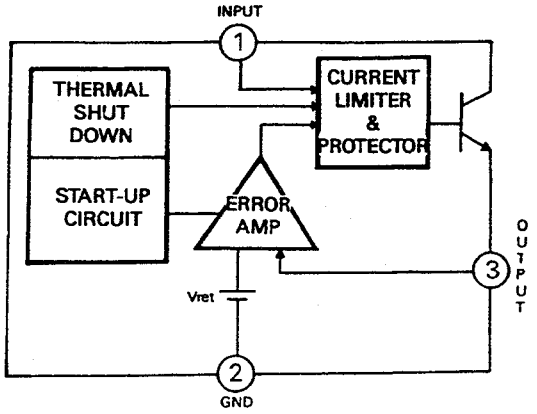
IC'S LEAD IDENTIFICATION & INTERNAL DIAGRAM

KA78XX : IC105, IC106

1. Package Outline

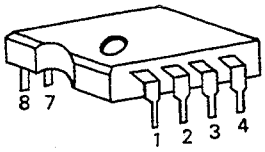


2. Block Diagram

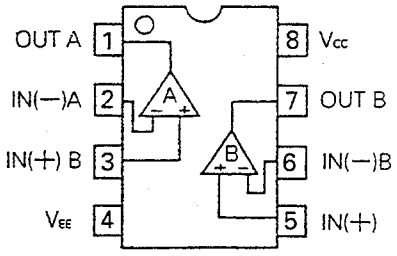


KIA4559P : IC301, IC705, IC704, IC801

1. Package Outline

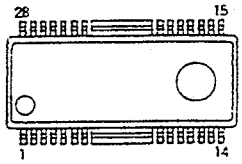


2. Block Diagram

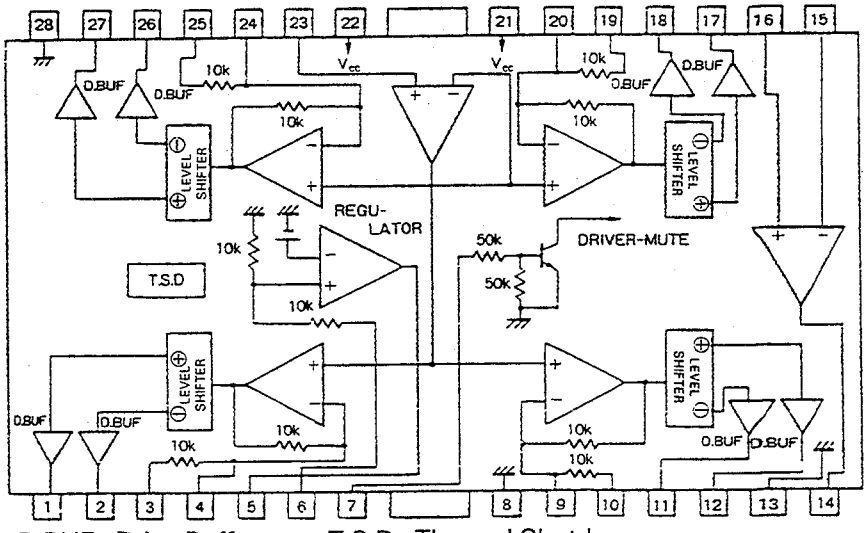


KA9258D : IC104

1. Package Outline



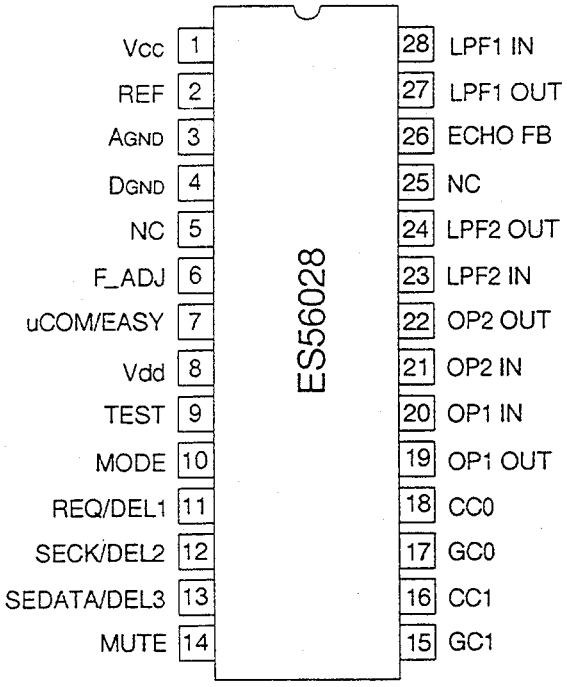
2. Block Diagram



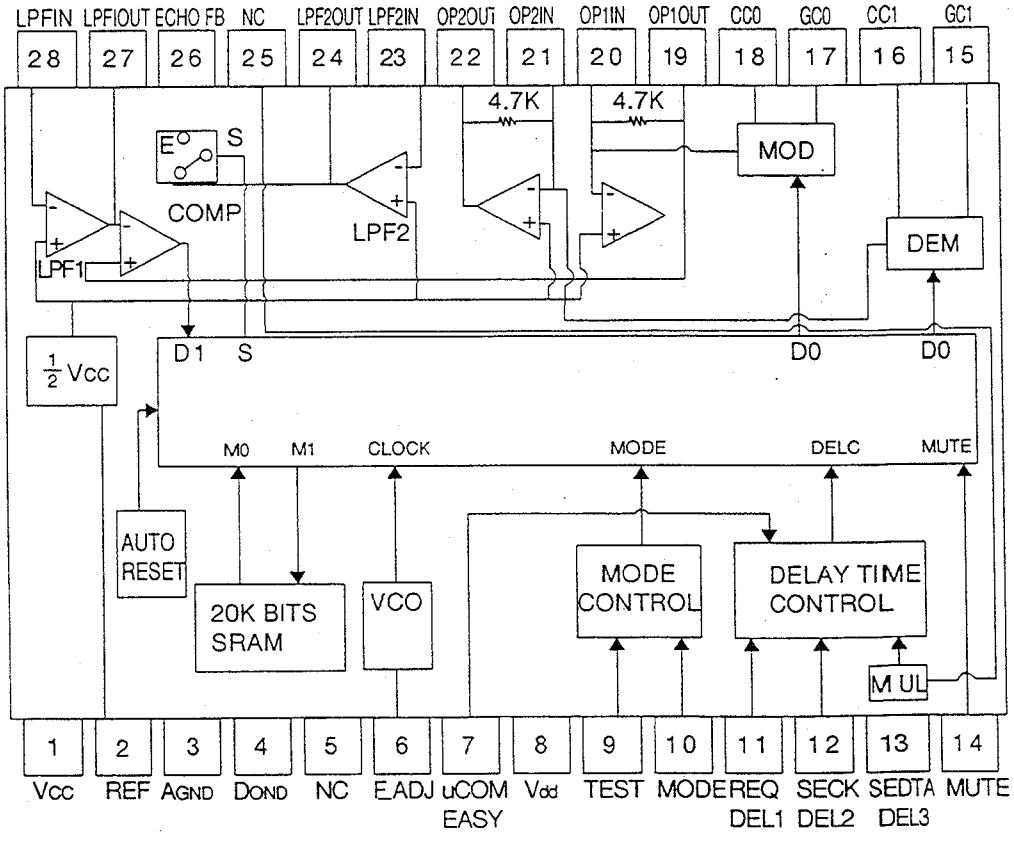
D.BUF : Drive Buffer T.S.D : Thermal Shutdown.

ES56028 : IC703 (Echo Sound Processor)

1. Pin Diagram



2. Block Diagram

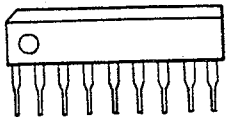

LPFIN LPFIOUT ECHO FB NC LPF2OUT LPF2IN OP2OUT OP2IN OP1IN OP1OUT CC0 GC0 CC1 GC1
28 27 26 25 24 23 22 21 20 19 18 17 16 15
4.7K
4.7K
MOD
DEM
COMP
LPF1
LPF2
1/2 Vcc
D1 S
D0 D0
M0 M1 CLOCK MODE DELC MUTE
AUTO RESET
20K BITS SRAM
VCO
MODE CONTROL
DELAY TIME CONTROL
M UL
1 2 3 4 5 6 7 8 9 10 11 12 13 14
Vcc REF AGND DGND NC EADJ uCOM EASY Vdd TEST MODE REQ DEL1 SECK DEL2 SEDTA DEL3 MUTE

3. Pin Description

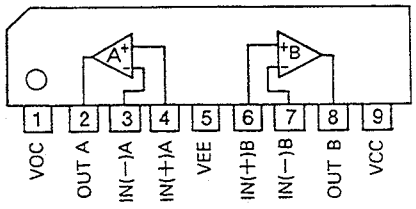
Pin	Name	I/O	Function
1	V_{CC}		Analog supply voltage input.
2	Ref		Analog reference voltage(=1/2 V_{CC})
3	A_{GND}		Analog ground.
4	D_{GND}		Digital ground.
5	NC		No connect.
6	F_adj	I	Frequency adjust
7	uCOM/EASY	I	A "high" on this input indicates μ-com mode--serial data control; a "low" on this input indicates EASY mode-- parallel data control.
8	V_{dd}		Disital supply voltage input.
9	Test	I	A "high" on this input indicates test mode; a "low" on this input indicates surround mode.
10	Mode	I	A "high" on this input indicates echo mode; a "low" on this input indicates surround mode.
11	Req/Del 1	I	In μ-com mode, this input indicates data request signal; in easy mode, this input indicates delay time 1 setting.
12	Seck/Del 2	I	In μ-com mode, this input indicates serial clock input; in easy mode, this input indicates delay time 3 setting.
13	Sedata/Del 3	I	In μ-com mode, this input indicates serial data input; in easy mode, this input indicates delay time 3 setting.
14	Mute	I	A "high" on this input indicates mute control.
15	GC1		Gain control 1.
16	CC1		Current control 1.
17	GC0		Gain control 0.
18	CC0		Current control 0.
19	OP1 OUT	O	It can be used as modulated integrator by connecting capacitor.
20	OP1 IN	I	It can be used as modulated integrator by connecting capacitor.
21	OP2 IN	I	It can be used as demodulated integrator by connecting capacitor.
22	OP2 OUT	O	It can be used as demodulated integrator by connecting capacitor.
23	LPF2 IN	I	Low pass filter 2 input.
24	LPF2 OUT	O	Low pass filter 2 output.
25	NC		No connect.
26	Echo FB	O	Echo feedback pin. In echo mode, it can be adjusted the needed echo feedback.
27	LPF1 OUT	O	Low pass filter 1 output.
28	LPF1 IN	I	Low pass filter 1 input.

KIA4559S/KIA75559S : IC108

1. Package Outline

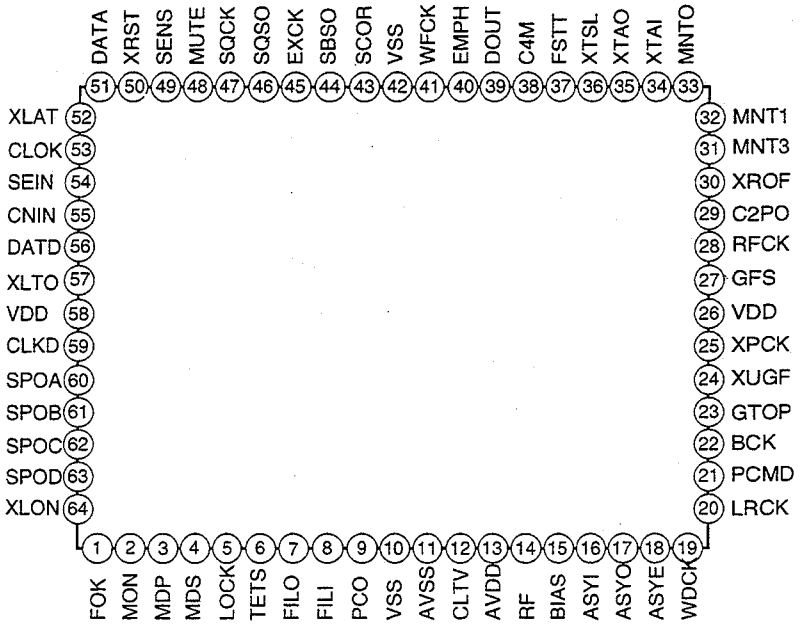


2. Block Diagram

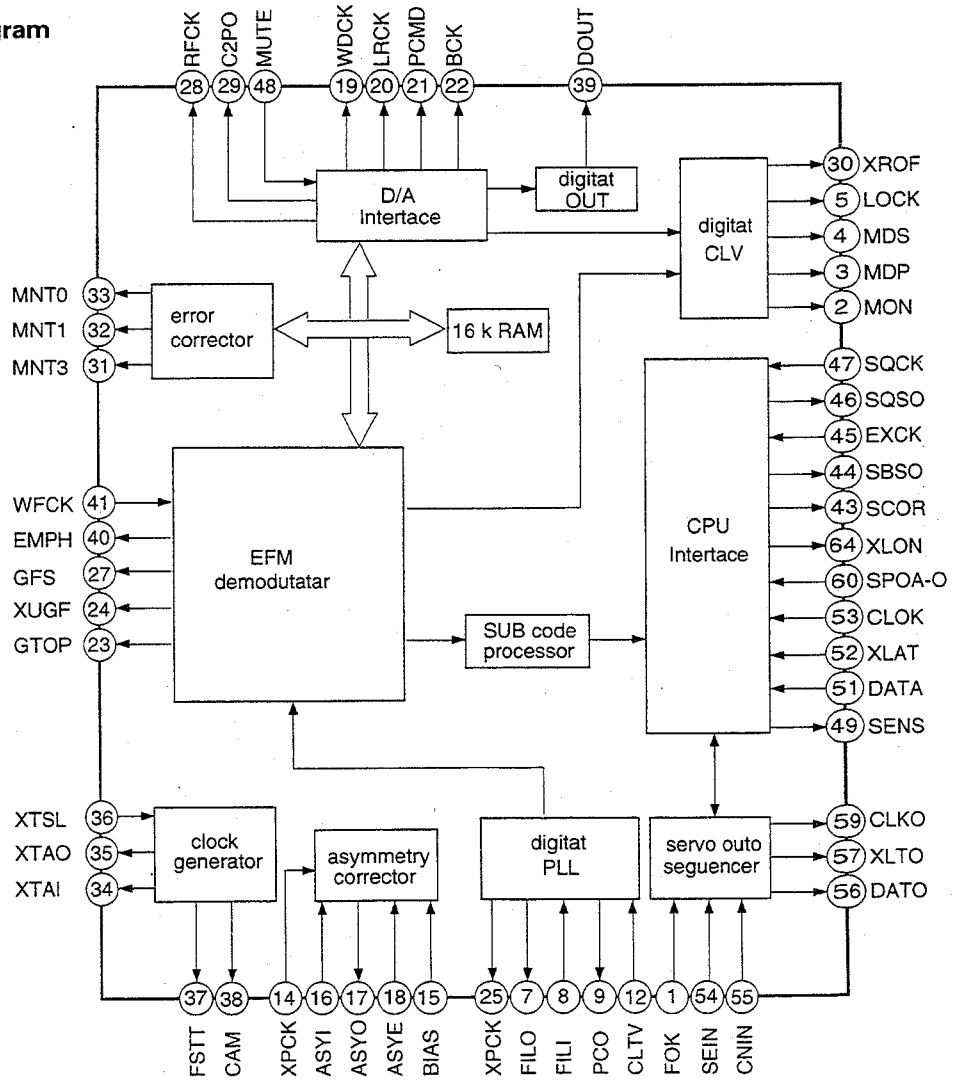


CXD 2507Q : IC102

1. Pin Diagram

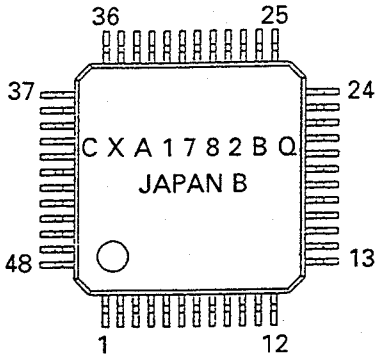


2. Block Diagram

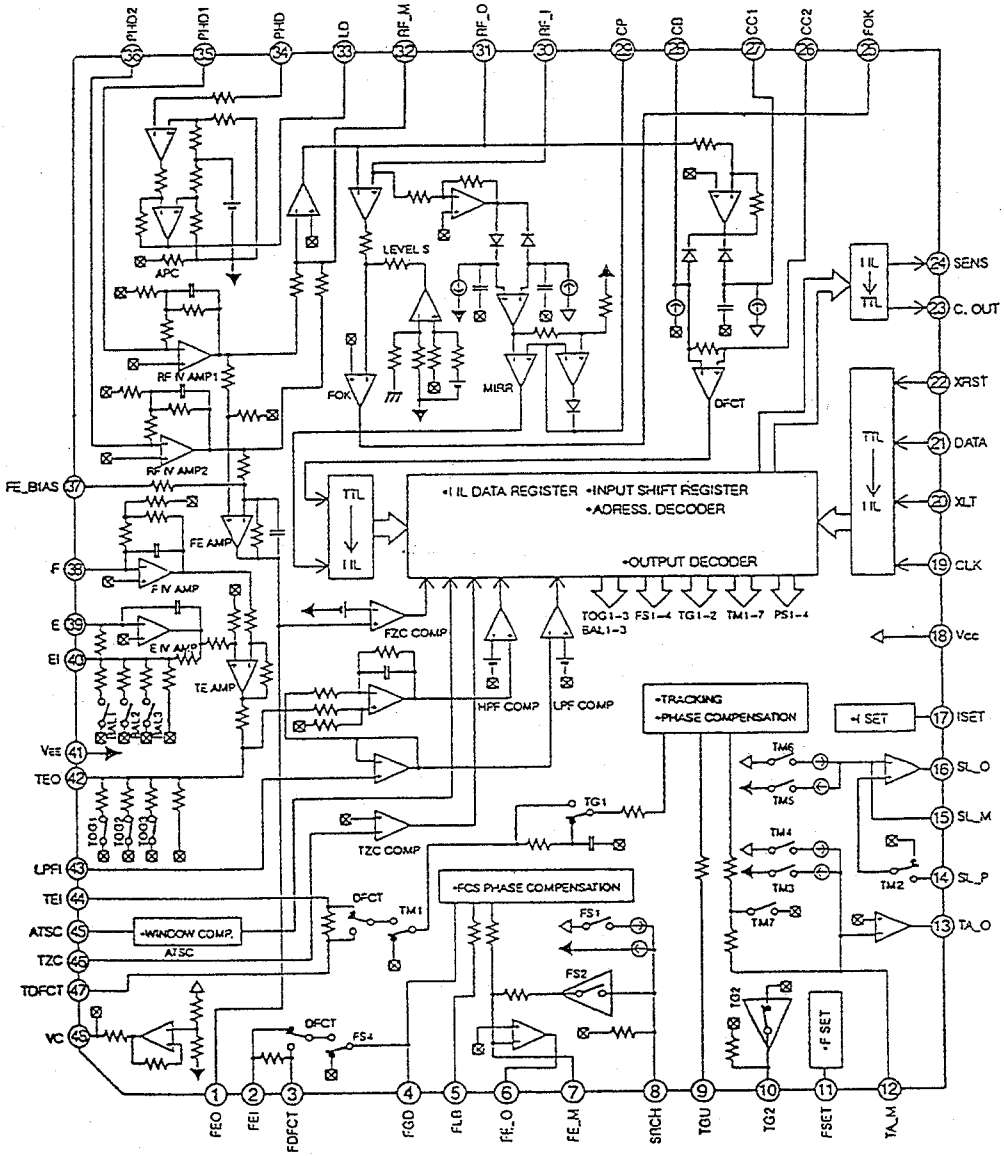


CXA 1782BQ : IC103

1. Pin Diagram

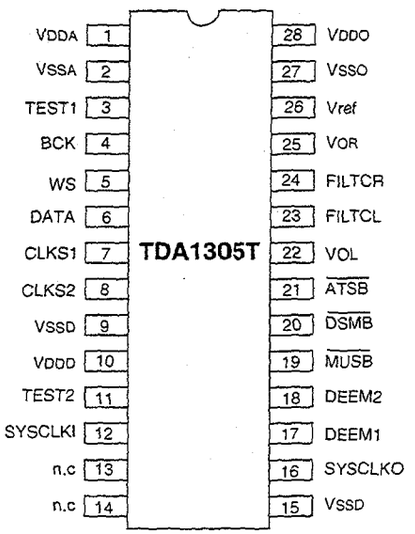


2. Block Diagram

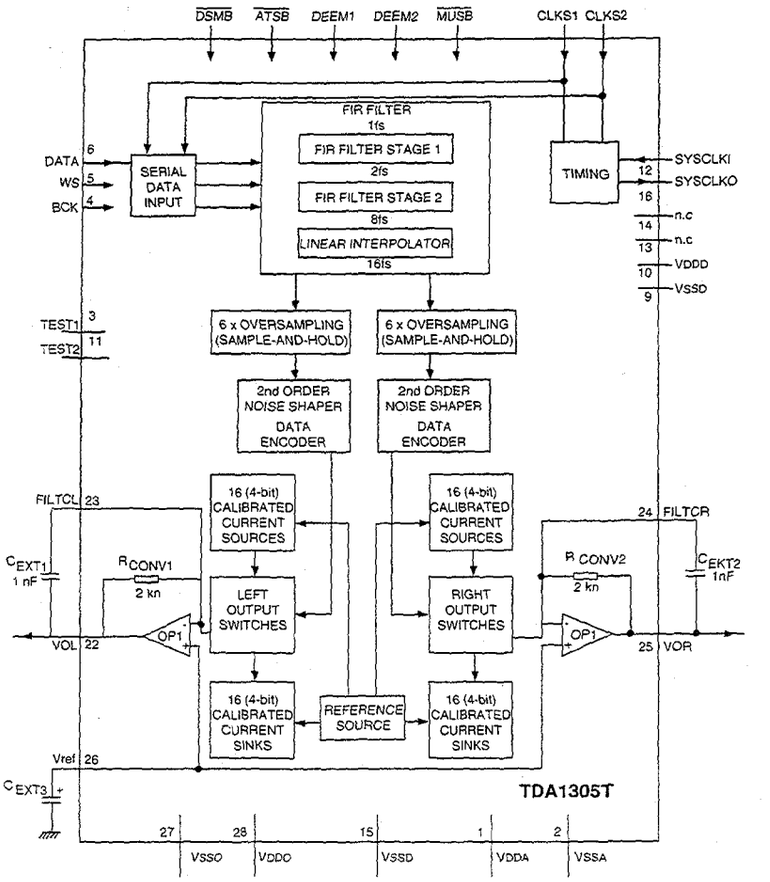


TDA 1305T : IC107

1. Pin Diagram



2. Block Diagram

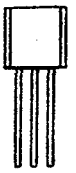
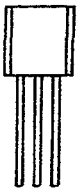
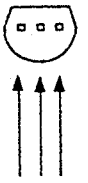
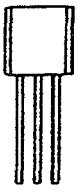
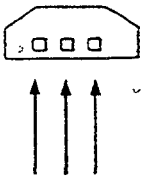


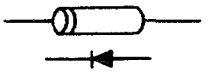
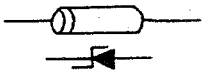
3. Pin Description

SYMBOL	PIN	DESCRIPTION
VDDA	1	analog supply voltage.
VSSA	2	analog ground
TEST1	3	test input; pin should be connected to ground (internal pull-down resistor)
BCK	4	bit clock input
WS	5	word select input
DATA	6	data input
CLKS1	7	clock selection 1 input
CLKS2	8	clock selection 2 input
VSSD	9	digital ground
VDDD	10	digital supply voltage
TEST2	11	test input; pin should be connected to ground (internal pull-down resistor)
SYSCLK1	12	system clock input
n.c.	13	not connected (this pin should be left open-circuit)
n.c.	14	not connected (this pin should be left open-circuit)
VSSD	15	digital ground

SYMBOL	PIN	DESCRIPTION
SYSCLKO	16	system clock output
DEEM1	17	de-emphasis on/off ; fDEEM 32 kHz, 44 kHz and 48 kHz
DEEM2	18	de-emphasis on/off ; fDEEM 32 kHz, 44 kHz and 48 kHz
$\overline{MUSB}$	19	mute input (active LOW)
$\overline{DSMB}$	20	double-speed mode input (active LOW)
$\overline{ATSB}$	21	12 dB attenuation input (active LOW)
VOL	22	left channel output
FILTCL	23	capacitor tor left channel 1st ordeer filter function should be connected between pins 22 and 23
FILTCR	24	capacitor for right channel 1st order filter function should be connected between pins 25 and 24
VOR	25	right channel output
Vref	26	internal reference voltage for output channel (0.5VDD)
VSSO	27	operational amplifier ground
VDDO	28	operational amplifier supply voltage

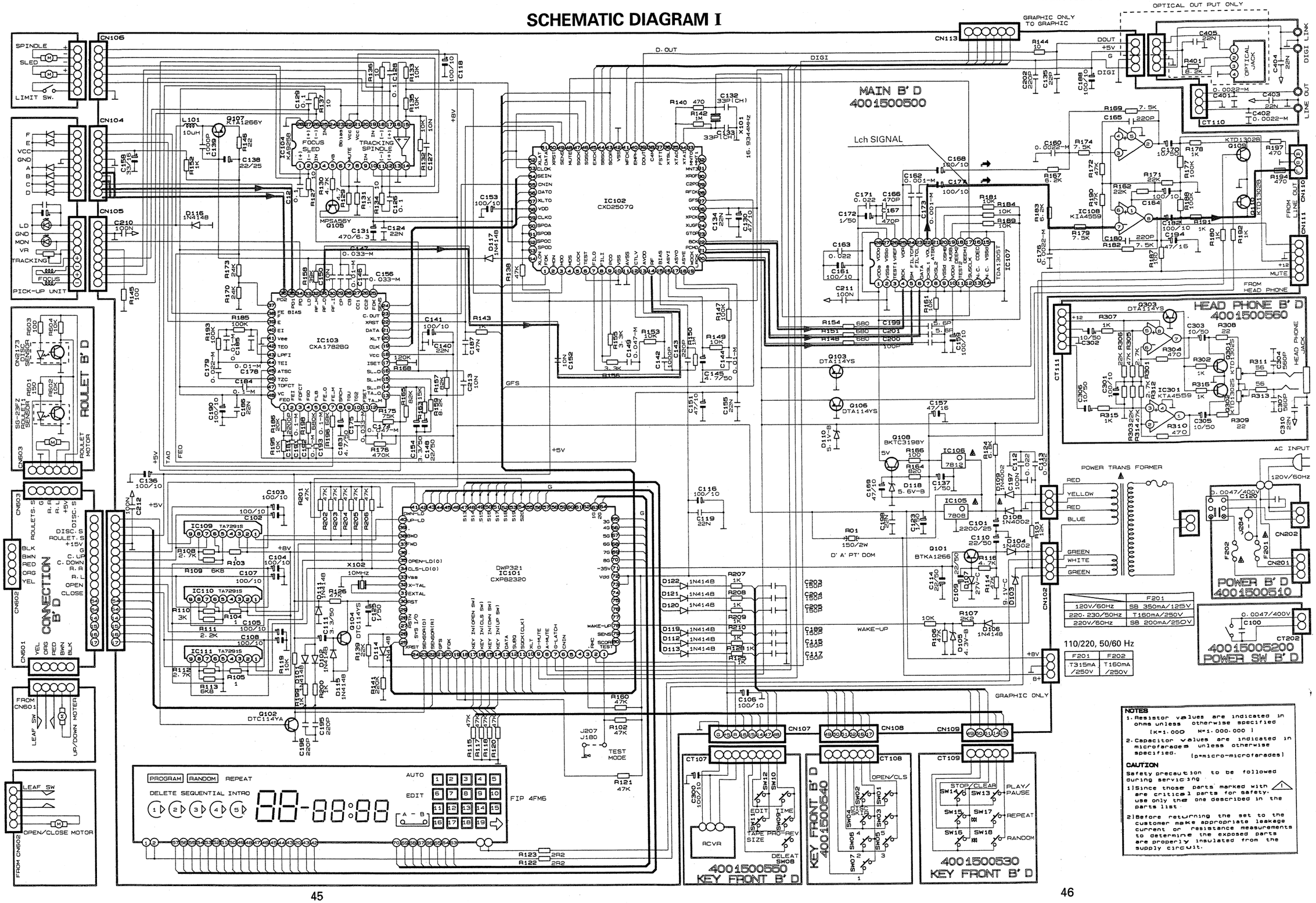
TRANSISTORS LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
KTC 1815Y/KTC 3198Y KTA 1015Y/KTA 1226Y 2SD 1302S KTA965Y/KTA1023	 ECB	 ECB
MPSA 06 MPSA 56	 EBC	 EBC
DTA 114YS/KRA107M DTC 114YS	 ECB	 ECB

DIODE	PACKAGE VIEW
1N 4148 1N 4002	
UN XX. XBSX (ZENER)	
TERMINAL NAME	
B : BASE C : COLLECTOR E : EMITTER	

Model No : CDC-6050R/ CDCG-6050R

SCHEMATIC DIAGRAM I



F201	
120V/60Hz	SB 350mA/125V
220-230/50Hz	T160mA/250V
220V/60Hz	SB 200mA/250V

F201	F202
T315mA /250V	T160mA /250V

NOTES

1. Resistor values are indicated in ohms unless otherwise specified (K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarades unless otherwise specified. (p=micro-microfarades)

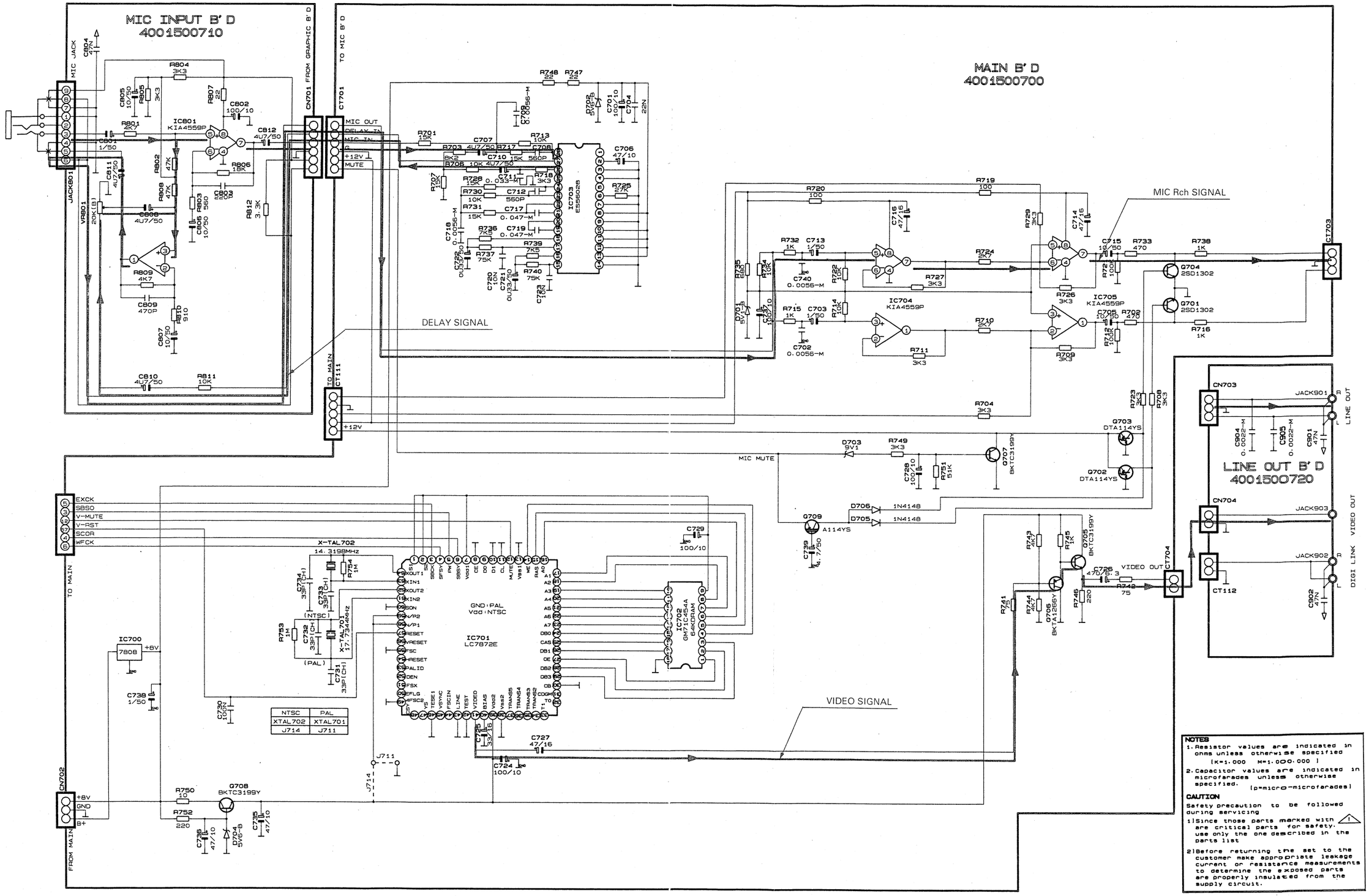
CAUTION

Safety precaution to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety, use only the one described in the parts list
2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM II

Model No : CDCG-6050R



NOTES

1. Resistor values are indicated in ohms unless otherwise specified
   (K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarades unless otherwise specified. (p=micro-microfarades)

CAUTION

Safety precaution to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety, use only the one described in the parts list

2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.